

**Documents and other miscellaneous data located on Douglas Gould, AAT-200 hard drive.**



### Chronology of September 11, 2001

American Airlines Flight 11	(AAL11)	Boston – Los Angeles
United Airlines Flight 175	(UAL175)	Boston – Los Angeles
United Airlines Flight 93	(UAL93)	Newark – San Francisco
American Airlines Flight 77	(AAL77)	Washington Dulles - Los Angeles

All times indicated are Eastern Daylight Savings Time

0756:27 Boston Airport Traffic Control Tower (Boston Tower) issued taxi instructions to AAL11.

0800:00 AAL11 began takeoff roll, runway 4 Right, Boston Logan International Airport. All communications with Boston Tower and with Boston Departure Control were routine and normal.

0804:55 Boston Tower issued taxi instruction to UAL175.

0809:17 AAL11 established radio contact with Boston Air Route Traffic Control Center (Boston Center). **“Boston Center, good morning, American Eleven with you passing through one-nine-zero (nineteen thousand feet) for two-three-zero (twenty-three thousand feet).”**

0809:18 Newark Airport Traffic Control Tower (Newark Tower) issued taxi instructions to UAL93.

0809:22 Boston Center acknowledged AAL11. From this time until 0813:31 all communications appear routine and normal. The sector was responsible for six aircraft including AAL11. The flight was instructed to climb to twenty-eight thousand feet, subsequently to twenty-nine thousand feet, and issued a twenty-degree turn for traffic.

0812:29 Dulles Airport Traffic Control Tower (Dulles Tower) issued taxi instructions to AAL77.

0813:47 **Boston Center instructs AAL11 “American Eleven, now, climb and maintain flight level three-five-zero (thirty-five thousand feet).” There was no acknowledgement to this transmission.** Boston Center made two subsequent transmissions to AAL11, neither of which were acknowledged. Between 0813:47 and 0824:53, Boston Center made several radio transmissions attempting to contact AAL11. None of the attempts were acknowledged.

0814:00 UAL175 began takeoff roll, runway 9, Boston Logan International Airport. All communications with Boston Tower and with Boston Departure Control were routine and normal.

0814:45 Boston Center, during intra-facility coordination recognized that **AAL11 appeared to be turning right** but had not acknowledged the climb clearance to thirty-five thousand feet and did not acknowledge any further radio transmissions.

0817:59 A brief unknown sound (possibly a scream) from an unknown origin was heard over the Boston Center radio (believed to be from AAL11).

0820:00 AAL77 began takeoff roll, runway 30, Washington Dulles International Airport. All communications with Dulles Tower and with Dulles Departure Control were routine and normal.

0820:48 **AAL11 secondary radar return (transponder) indicating aircraft speed, altitude, and flight information was lost on Boston Center radar displays. The aircraft was then observed as a primary radar target only.**

0823:01 **UAL175 established radio contact with Boston Air Route Traffic Control Center (Boston Center)). "Boston, morning, United one-seven-five out of one-nine (nineteen thousand feet) for two-three-zero (twenty-three thousand feet)."**

0823:06 Boston Center acknowledged UAL175. At this point the controller was busy due to the events surrounding AAL11. The sector was responsible for six aircraft including UAL175. All communications between Boston Center and UAL175 appear routine and normal. The flight was subsequently instructed to climb to flight level 310 (thirty-one thousand feet) and after radar handoff, was issued a frequency change to contact the New York Air Route Traffic Control Center (New York Center).

0824:38 A radio transmission partially unintelligible stated, "we have some planes just stay quiet and you'll be ok we are returning to the airport" from an unknown origin was heard over the Boston Center radio (believed to be from AAL11).

0824:57 A second radio transmission partially unintelligible stated "nobody move everything will be ok if you try to make any moves you'll endanger yourself and the airplane just stay quiet" – from an unknown origin was heard over the Boston Center radio (believed to be from AAL11).



0825:00 Boston Center began notification based on radio transmissions that a suspected hijack was in progress (believed to be from AAL11). The New England Regional Operations Center (ROC), the Air Traffic Control System Command Center (ATCSCC), and the Boston Center facility manager were notified. Additionally, controllers began inter-facility coordination with New York Center of the possible hijacking. Coordination describes the last known altitude as twenty-nine thousand feet.

0825:49 **AAL77 established radio contact with Washington Air Route Traffic Control Center (Washington Center), "Center, American seventy-seven with you passing one-three decimal zero (thirteen thousand feet) for one-seven-thousand (seventeen thousand feet)." All communications between Washington Center and AAL77 appear routine and normal. AAL77 was subsequently handed off to the Indianapolis Air Route Traffic Control Center (Indy Center).**

0826:00 **AAL11 began southbound turn over Albany, New York. The last known altitude was twenty-nine thousand feet.**

0833:59 A third radio transmission partially unintelligible stated "nobody move please we are going back to the airport don't try to make any stupid moves" – from an unknown origin was heard over the Boston Center radio. AAL11 primary radar track was still southbound, and the last known altitude was twenty-nine thousand feet (believed to be from AAL11).

0834:00 Boston Center contacted Cape Terminal Radar Approach Control (located on OTIS Air Force Base) and requested they notify the Military of the events regarding AAL11.

0835:00 New England Regional Operations Center advised Washington Operations Center of the suspected hijack of AAL11.

0836:00 Washington Operations Center (WOC) notified Civil Aviation Security Intelligence, and conferenced New England Regional Operations Center and the Air Traffic Control Systems Command Center (ATCSCC).

0838:00 Boston Center notified New York Center of possible hijacking of AAL11.

0840:00 North East Air Defense Sector (NEADS) logs indicate they were notified by the Federal Aviation Administration of the events concerning AAL11.

0840:14 AAL77 established radio contact with Indy Center. "Center, American seventy-seven with you, level three thirty (thirty-three thousand feet).

0840:16      Indy Center acknowledged, "American seventy-seven, Indy center, roger, squawk three-seven-four-three." (Squawk is a control instruction to change the transponder setting within the aircraft). AAL77 was subsequently instructed to climb to thirty-five thousand feet and later cleared to navigate direct to the Falmouth navigational aid. When Indy Center acknowledged AAL77, the sector was responsible for fourteen aircraft; additionally four aircraft were in handoff status to this sector.

0840:32      UAL175 established radio contact with New York Center. "United one-seventy-five at flight level three-one-zero."

0840:37      New York Center acknowledged UAL 175. "United one-seventy-five, New York Center, roger."

0841:00      Military Command (VACAPES) issued scramble order on AAL11.

0841:32      UAL175 transmitted to New York Center, "We figured we'd wait to go to your center, we heard a suspicious transmission on our departure out of Boston. Someone keyed the mike (initiated radio communications) and said everyone stay in your seats."

0841:51      New York Center replied, "okay, I'll pass that along." (The controller ensured UAL175's comments were forwarded to the Operations Manager.)

**0842:00      UAL93 began takeoff roll, runway 4 left, Newark New Jersey International Airport. All communications with Newark Tower, with New York Departure Control, and with New York Center were routine and normal.**

0844:00      New York Center facility manager notified New York Terminal Radar Approach Control (New York TRACON) of possible hijacking of AAL11. New York TRACON began internal coordination of the aircraft's last known altitude (twenty-nine thousand feet) and southbound course.

0844:05      US Air Flight 83 transmitted to New York Center "I just picked up an ELT (emergency locator transmitter) on 121.5 (emergency VHF frequency). It was brief, but it went off."

0844:09      New York Center acknowledged US Air Flight 83.

**0846:31      Primary radar tracking of AAL11 was lost.**

**0846:35      AAL11 impacted the World Trade Center.**

0846:48 UAL175's assigned transponder code of 1470 changed, first indicating 3020, then changing again to 3321. New York Center air traffic computers do not correlate either of these codes with UAL175. Consequently, UAL175 secondary radar return (transponder) indicating aircraft speed, altitude, and flight information began to coast and was no longer associated with the primary radar return. *Note: The controller communicating with UAL175 was also monitoring the flight track of AAL11. Based on coordination received from Boston Center indicating a possible hijack, most of the controller's attention had been focused on AAL11.*

0850:00 Washington Operations Center activated a Tactical Net at the request of Civil Aviation Security Intelligence).

0850:00 Newark Tower advised New York TRACON of possible aircraft crash into the World Trade Center (believed to be from AAL11).

0850:51 AAL77 acknowledged the clearance to Falmouth. This was the last radio communication with this flight.

0851:43 New York Center transmitted to UAL175, "UAL175, recycle transponder, squawk code one four seven zero." No response was received from UAL175. The controller makes several attempts, repeatedly trying to contact UAL175 for the next four minutes. During this time, the aircraft is also observed making a left turn and descending.

0853:24 New York Center controller coordinated internally, asking other controllers if they saw UAL175, or if they knew who the unidentified radar target is on transponder code 3321. None of the other controllers replied in the affirmative. *Note: The unknown aircraft in this and all following times was later confirmed to be UAL175.*

0854:43 AAL77 began a left turn towards the south without air traffic authorization. The altitude indicated thirty-five thousand feet. Shortly after the turn, the aircraft was observed descending.

0855:00 New York Center controller was busy trying to turn other aircraft away from the aircraft believed to be UAL175. The flight track of this aircraft had changed and was now headed southeast bound.

0855:00 *This time is approximate based on personnel statements from New York Center. A controller-in-charge (CIC) advised the Operations Manager (OM) that she believed UAL175 was also hijacked. The OM advised the CIC that an aircraft had hit the World Trade Center. The CIC began coordinating with the controllers working position and one of the controllers stated that UAL175 appeared to heading "right towards the city." The CIC returned to the OM position and heard a request for military aircraft to scramble. UAL175 was observed in a rapid descent*

0855:00 *This time is approximate based on personnel statements from New York Center. A controller working a different position within New York Center reported that two aircraft, a Delta Airlines flight was given instructions to avoid an unknown aircraft. At about the same time a US Airways flight reported taking evasive action from an unknown aircraft. The controller reported that the unknown aircraft was now headed towards New York City. This controller, along with other controllers speculated that the unknown aircraft was an emergency and was heading for an airport to land (believed to be from UAL175).*

0856:19 **Secondary radar return (transponder) indicating aircraft speed, altitude, and flight information is lost on Indy Center radar displays. There was no longer any radar return information (either primary or secondary) on AAL77 indicated at the Indy Center radar displays. Note: The initial review of radar data, and controller personnel statements conducted by Indy Center did not indicate any primary or secondary radar returns were displayed.**

0856:32 Indy Center controller attempted to contact AAL77, "American seventy-seven, Indy." There was no acknowledgement. Indy Center also tried to communicate with AAL77 through American Airlines company radios.

0858:14 Indy Center also made several attempts to contact AAL77 through American Airlines company dispatch.

0859:00 Indy Center controllers began coordinating with other controllers to protect the airspace and altitude of AAL77's filed route of flight.

0900:00 *This time is approximate based on personnel statements from New York TRACON. Controller stated "at approximately 9:00, I observed an unknown aircraft south of the Newark, New Jersey Airport, northeast bound and descending out of twelve thousand nine hundred feet in a rapid rate of descent, the radar target terminated at the World Trade Center." (believed to be from UAL175)*

0903:14 UAL175 impacted the World Trade Center.

0905:00 North East Air Defense Sector (NEADS) logs indicate they were notified by the Federal Aviation Administration of the events concerning UAL175.

0905:00 New York TRACON received notification from the Newark Airport Traffic Control Tower of a second aircraft striking the World Trade Center (believed to be from UAL175).

0909:00 Indy Center notified Great Lakes Regional Operations Center a possible aircraft accident of AAL77 due to the simultaneous loss of radio communications and radar identification.

0915:00 *This time is approximate based on personnel statements from Indy Center.* The Indy Center Operations Manager requested that the Traffic Management personnel notify Air Force Search and Rescue of the missing and possibly downed aircraft. The Operations Manager also contacted the West Virginia State Police advising them of a possible downed aircraft and asks if they have any reports of a downed aircraft.

0920:00 *This time is approximate based on personnel statements from Indy Center.* The Indy Center Operations Manager contacted the Chicago Air Route Traffic Control Center (Chicago Center) and advised the Chicago Center Operations Manager of his concern that AAL77 may have been hijacked and that he (Chicago Center Operations Manager) should be on the look out (based on events occurring in New York).

0924:00 Great Lakes Regional Operations Notified Washington Operations Center of the simultaneous loss of radio communications and radar identification from AAL77.

0924:30 UAL93 established radio contact with Cleveland Air Route Traffic Control Center (Cleveland Center), "Good morning Cleveland, United ninety-three, three-five-oh (thirty-five thousand feet), intermittent light chop." The controller was busy, the sector was responsible for sixteen aircraft. Of these, several aircraft were being issued new routes based on the events occurring on the east coast. The controller did not reply to this initial transmission.

0925:00 ***Between 0925:00 and 0930:00, this time is approximate based on personnel statements from Dulles Tower. Several Dulles Tower controllers working radar positions in the facility observed a primary radar target tracking eastbound at a high rate of speed. Note: The unknown aircraft in this and all following times was later confirmed to be AAL77.***

0925:14 UAL93 again reported on Cleveland Center frequency, "United ninety-three checking three-five-oh (thirty-five thousand feet)." The controller replied, "United ninety-three, Cleveland, roger." *Note: This was the third radar sector within Cleveland Center to communicate with UAL93. The communications with the previous sectors were routine and normal.*

0928:19 A radio transmission of unintelligible sounds of possible screaming or a struggle from an unknown origin was heard over the Cleveland Center radio (believed to be from UAL93).

0928:54 A second radio transmission, mostly unintelligible, again with sounds of possible screaming or a struggle and a statement, "get out of here, get out of here" from an unknown origin was heard over the Cleveland Center radio (believed to be from UAL93). At about this same time, the Cleveland Center controller observed that UAL93 had descended, altitude indicated thirty-four thousand, three hundred feet.

**0929:29 Cleveland Center controller asked UAL93, "United ninety-three, verify three-five-zero (thirty-five thousand feet)." There was no reply. The Cleveland Center controller made several attempts to contact UAL93 without receiving any acknowledgement.**

**0929:50 Cleveland Center controller began moving other aircraft away from UAL93 due to the lack of acknowledgement of any radio transmissions. Several other aircraft on the frequency confirmed unusual sounds of an unknown origin. The altitude of UAL93 again indicated thirty-five thousand feet.**

0931:57 A third radio transmission, mostly unintelligible, may sound like an individual out of breath, more unintelligible words and what sounds like "bomb on board" from an unknown origin was heard over the Cleveland Center radio (believed to be from UAL93).

0932:31 A fourth radio transmission stated "did you hear that transmission that reported a bomb on board?" from an unknown origin was heard over the Cleveland Center radio (believed to be from UAL93).

0933:00 *This time is approximate based on personnel statements from Dulles Tower. An Operations Supervisor at Dulles Tower advised the White House Office of the United States Secret Service of an unknown aircraft heading in the direction of the White House, fast moving. Meanwhile, a controller was providing the same information to controllers working at the Ronald Reagan Washington National Airport Traffic Control Tower (National Tower). The Dulles Tower Operations Supervisor also provided continuous updates on a critical event teleconference established at the Federal Aviation Administration Headquarters building. Note: The unknown aircraft was later confirmed to be AAL77.*

0933:00 *This time is approximate based on personnel statements from National Tower. An Operations Supervisor at National Tower was advised by Dulles Tower of the unknown aircraft. The Operations Supervisor at National Tower immediately notified the White House Office of the United States Secret Service of the unknown aircraft's location and provided continuous updates. Note: The unknown aircraft was later confirmed to be AAL77.*



0934:50 Cleveland Center controller observed that UAL93 was climbing without an air traffic control authorization. The aircraft had started a turn to the southeast, also without air traffic control authorization.

0936:00 Personnel at National Tower issued traffic advisories on the unknown aircraft to a military C130 aircraft that had departed Andrews Air Force Base. When the C130 aircraft (GOFER06) reported the unidentified aircraft in sight, the pilot was instructed to follow the unknown aircraft. *Note: The unknown aircraft was later confirmed to be AAL77.*

**0938:00 GOFER06 reported that the unknown aircraft had crashed into the western side of the Pentagon. *Note: The unknown aircraft was later confirmed to be AAL77.***

0938:47 UAL93 altitude indicated forty-thousand seven hundred feet.

0939:12 A fifth radio transmission, mostly unintelligible, stated words that may sound like "captain, ...bomb on board, ...our demands, ...remain quiet" – from an unknown origin was heard over the Cleveland Center radio (believed to be UAL93).

0939:59 Cleveland Center notified Great Lakes Regional Operations Center of the screams and statements from unknown origin believed to be UAL93.

**0941:00 UAL93 secondary radar return (transponder) indicating aircraft speed, altitude, and flight information becomes intermittent and eventually failed on Cleveland Center radar displays.**

0944:31 Cleveland Center controller notified Pittsburgh Terminal Radar Approach Control (PIT) North Arrival controller of the unanticipated turn, the loss of secondary radar return and lack of radio communications with UAL93. The Cleveland Center controller also stated that the projected flight path would result in UAL93 passing in close proximity if not directly overhead the Greater Pittsburgh International Airport.

0945:00 PIT controller notified the Operations Supervisor of the events surrounding UAL93. The PIT controller also manually initiated radar tracking of the primary radar target.

0951:00 After determination by the PIT facility manager to evacuate, the controllers have completed coordination with adjacent facilities and the PIT facility has been evacuated.

0956:56 A small contingency of controllers (volunteers) returned to the facility and coordination with adjacent facilities pertaining to return to operational status is completed. The track of UAL93 was no longer visible on the PIT radar displays.

1000:00 *This time is approximate and is based on personnel statements from Cleveland Center. A Cleveland Center controller's statement indicated that the pilot of a VFR aircraft reported sighting a United Airlines aircraft at approximately eight thousand feet in the vicinity of the Latrobe, Pennsylvania airport. The pilot also reported that the United Airlines aircraft's landing gear was down, the wings were rocking, and that the aircraft appeared to be in distress.*

1004:00 *This time is approximate and is based on personnel statements from Cleveland Center. A Cleveland Center controller statement indicated that UAL93's primary radar target terminated in the vicinity of Somerset, Pennsylvania.*

1007:00 **In response to a request from a Cleveland Center controller, N20VF, a Falcon Jet reported observing puffs of smoke in the vicinity of UAL93's last known position.**

1041:00 *After receiving a telephone call from the Somerset, Pennsylvania police department stating that several "911" telephone calls had been received reporting an aircraft accident, a Cleveland Center operations manager made official notification to Great Lakes Regional Operations Center. Note: Although this is the officially documented notification time, FAA officials were aware of the accident as these events were reported as they occurred on a critical event teleconference established at the Federal Aviation Administration headquarters building. The unknown aircraft was later confirmed to be UAL93.*

AAT-20  
 September 18, 2001  
 8:30 AM



## AAL11

8:00-8:13am ET

All communications with AAL11 appear routine and normal. At 8:09am ET, AAL11 is instructed to turn right 20 degrees

8:24:57am ET

Second unknown communication... *"...nobody move, everything will be OK, if you try to make any moves you'll endanger yourself and the airplane, just stay quiet..."*

8:24:38am ET

Unknown communication... *"...we have some planes, just stay quiet and you will be OK, we are returning to the airport..."*

8:34am ET

Unknown transmission - *"...nobody move please, we are going back to the airport, don't try to make any stupid moves..."*

## UAL175

8:42am ET

UAL175 pilot announces to New York Center *"We figured we'd wait to go to your center, we heard a suspicious transmission on our departure out of Boston. Someone keyed the mike and said 'everyone stay in your seats'"*

8:52am ET

Controllers instruct UAL175 to recycle transponder *"...squawk 1470..."* No response is received from UAL175. Flight is observed beginning a climb and an unauthorized left turn.

## UAL93

9:25:14am ET

The pilot of UAL93 reports on Cleveland Center frequency, *"United ninety-three checking three-five-oh"* The controller replied *"United ninety-three, Cleveland, roger"*

9:28:19am ET

A radio transmission of unintelligible sounds of possible screaming or a struggle from an unknown origin is heard

9:28:54am ET

A second radio transmission of mostly unintelligible sounds of possible screaming or a struggle and a statement *"...get out of here, get out of here..."* from an unknown origin is heard.

**9:31:57am ET**

**A third radio transmission of unknown origin is heard. More unintelligible words and what sounds like "...*bomb on board*..."**

**9:39:12am ET**

**Another unknown radio transmission is heard, mostly unintelligible, states words that may sound like "...*captain...bomb on board...our demands...remain quiet*..."**

**AAL99**

**8:51am ET**

**AAL77 acknowledges routing clearance to Falmouth, KY navigational aid. This was the last radio communication with the flight.**

**American Airlines Flight 11 (AAL11)**

**Boston – Los Angeles**

**All times indicated are Eastern Daylight Savings Time**

0756:27 Boston Airport Traffic Control Tower (BOS) issued taxi instructions to AAL11.

0800:00 AAL11 began takeoff roll, runway 4 Right, Boston Logan International Airport. All communications with BOS and with Boston Departure Control were routine and normal.

0809:17 **AAL11 established radio contact with Boston Air Route Traffic Control Center (ZBW). “Boston Center, good morning, American Eleven with you passing through one-nine-zero (nineteen thousand feet) for two-three-zero (twenty-three thousand feet).”**

0809:22 ZBW acknowledged AAL11. From this time until 0813:31 all communications appear routine and normal. The sector was responsible for six aircraft including AAL11. The flight was instructed to climb to twenty-eight thousand feet, subsequently to twenty-nine thousand feet, and issued a twenty degree turn for traffic.

0813:47 **ZBW instructed AAL11 “ American Eleven, now, climb and maintain flight level three-five-zero (thirty-five thousand feet).” There was no acknowledgement to this transmission.** ZBW made two subsequent transmissions to AAL11, neither of which were acknowledged. Between 0813:47 and 0824:53, ZBW made several radio transmissions attempting to contact AAL11. None of the attempts were acknowledged.

0814:45 ZBW during intra-facility coordination recognized that **AAL11 appeared to be turning right** but had not acknowledged the climb clearance to thirty-five thousand feet and did not acknowledge any further radio transmissions.

0817:59 A brief unknown sound (possibly a scream) from an unknown origin was heard over the ZBW radio.

0820:48 **Secondary radar return (transponder) indicating aircraft speed, altitude, and flight information was lost on ZBW radar displays. The aircraft was then observed as a primary radar target only.**

0824:38 A radio transmission partially unintelligible stated, “we have some planes just stay quiet and you’ll be ok we are returning to the airport” from an unknown origin was heard over the ZBW radio.

0824:57 A second radio transmission partially unintelligible stated “nobody move everything will be ok if you try to make any moves you’ll endanger yourself and the airplane just stay quiet” – from an unknown origin was heard over the ZBW radio.

0825:00 ZBW began notification based on radio transmissions that a suspected hijack was in progress. The New England Regional Operations Center (ROC), the Air Traffic Control System Command Center (ATCSCC), and the ZBW facility manager were notified. Additionally, controllers began inter-facility coordination with New York Air Route Traffic Control Center (ZNY) of the possible hijacking. Coordination describes the last known altitude as twenty-nine thousand feet.

**0826:00 AAL11 began southbound turn over Albany, New York. The last known altitude was twenty-nine thousand feet.**

0833:59 A third radio transmission partially unintelligible stated “nobody move please we are going back to the airport don’t try to make any stupid moves” – from an unknown origin was heard over the ZBW radio. AAL11 primary radar track was still southbound, and the last known altitude was twenty-nine thousand feet.

0834:00 ZBW contacted Cape Terminal Radar Approach Control (located on OTIS Air Force Base) and requested they notify the Military of the events regarding AAL11.

0835:00 New England Regional Operations Center advised Washington Operations Center (WOC) of the suspected hijack of AAL11.

0836:00 WOC notified Civil Aviation Security Intelligence (ACI), and conferenced New England Regional Operations Center and the Air Traffic Control Systems Command Center (ATCSCC).

0838:00 ZBW notified New York Air Route Traffic Control Center (ZNY) of possible hijacking of AAL11.

0840:00 North East Air Defense Sector (NEADS) logs indicate they were notified by the Federal Aviation Administration of the events concerning AAL11.

0841:00 Military Command (VACAPES) issued scramble order on AAL11.

0844:00 ZNY facility manager notified New York Terminal Radar Approach Control (N90) of possible hijacking of AAL11. N90 began internal coordination of the aircraft’s last known altitude (twenty-nine thousand feet) and southbound course.

**0846:31 Primary radar tracking of AAL11 was lost.**

**0846:35 Impact at World Trade Center.**

0850:00 Washington Operations Center activated a Tactical Net at the request of Civil Aviation Security Intelligence (ACI).

0850:00 Newark Airport Traffic Control Tower (EWR) advised N90 of possible aircraft crash into the World Trade Center.

AAT-20  
September 17, 2001  
6:30 AM



**United Airlines Flight 175 (UAL175)**

**Boston – Los Angeles**

**All times indicated are Eastern Daylight Savings Time**

0804:55 Boston Airport Traffic Control Tower (BOS) issued taxi instruction to UAL175.

0814:00 UAL175 began takeoff roll, runway 9, Boston Logan International Airport. All communications with BOS and with Boston Departure Control were routine and normal.

**0823:01 UAL175 established radio contact with Boston Air Route Traffic Control Center (ZBW). "Boston, morning, United one-seven-five out of one-nine (nineteen thousand feet) for two-three-zero (twenty-three thousand feet)."**

0823:06 ZBW acknowledged UAL175. At this point the controller was busy due to the events surrounding AAL11. The sector was responsible for six aircraft including UAL175. All communications between ZBW and UAL175 appear routine and normal. The flight was subsequently instructed to climb to flight level 310 (thirty-one thousand feet) and after radar handoff, was issued a frequency change to contact the New York Air Route Traffic Control Center (ZNY).

0840:32 UAL175 established radio contact with ZNY. "United one-seventy-five at flight level three-one-zero."

0840:37 ZNY acknowledged UAL 175. "United one-seventy-five, New York Center, roger."

0841:32 UAL175 transmitted to ZNY, "We figured we'd wait to go to your center, we heard a suspicious transmission on our departure out of Boston. Someone keyed the mike (initiated radio communications) and said everyone stay in your seats."

0841:51 ZNY replied, "okay, I'll pass that along." (The controller ensured UAL175's comments were forwarded to the Operations Manager.)

0844:05 US Air Flight 83 transmitted to ZNY "I just picked up an ELT (emergency locator transmitter) on 121.5 (emergency VHF frequency). It was brief, but it went off."

0844:09 ZNY acknowledged US Air Flight 83.

0846:48 UAL175's assigned transponder code of 1470 changed, first indicating 3020, then changing again to 3321. ZNY air traffic computers do not correlate either of these codes with UAL175. Consequently, the secondary radar return (transponder) indicating aircraft speed, altitude, and flight information began to coast and was no longer associated with the primary radar return. *Note: The controller communicating with UAL175 was also monitoring the flight track of AAL11. Based on coordination received from ZBW indicating a possible hijack, most of the controller's attention was focused on AAL11.*

0850:00 Washington Operations Center activated a Tactical Net at the request of Civil Aviation Security Intelligence (ACI).

0851:43 ZNY transmitted to UAL175, "UAL175, recycle transponder, squawk code one four seven zero." No response was received from UAL175. The controller made several attempts, repeatedly trying to contact UAL175 for the next four minutes. During this time, the aircraft was also observed making a left turn and descending.

0853:24 ZNY controller coordinated internally, asking other controllers if they saw UAL175, or if they knew who the unidentified radar target is on transponder code 3321. None of the other controllers replied in the affirmative. *Note: The unknown aircraft in this and all following times was later confirmed to be UAL175.*

0855:00 ZNY controller was busy trying to turn other aircraft away from the aircraft believed to be UAL175. The flight track of this aircraft had changed and was now headed southeast bound.

0855:00 *This time is approximate based on personnel statements from ZNY.* A controller-in-charge (CIC) advised the Operations Manager (OM) that she believed UAL175 was also hijacked. The OM advised the CIC that an aircraft had hit the World Trade Center. The CIC began coordinating with the controllers working position and one of the controllers stated that UAL175 appeared to heading "right towards the city." The CIC returned to the OM position and heard a request for military aircraft to scramble. UAL175 was observed in a rapid descent

0855:00 *This time is approximate based on personnel statements from ZNY.* A controller working a different position within ZNY reported that two aircraft , a Delta Airlines flight was given instructions to avoid an unknown aircraft. At about the same time a US Airways flight reported taking evasive action from an unknown aircraft. The controller reported that the unknown aircraft was now headed towards New York City. This controller, along with other controllers speculated that the unknown aircraft was an emergency and was heading for an airport to land.



0900:00      *This time is approximate based on personnel statements from New York Terminal Radar Approach Control (N90). N90 controller stated “at approximately 9:00, I observed an unknown aircraft south of the Newark, New Jersey Airport, northeast bound and descending out of twelve thousand nine hundred feet in a rapid rate of descent, the radar target terminated at the World Trade Center.”*

0903:14      Second Impact at World Trade Center.

0905:00      North East Air Defense Sector (NEADS) logs indicate they were notified by the Federal Aviation Administration of the events concerning UAL175.

0905:00      N90 received notification from the Newark Airport Traffic Control Tower of a second aircraft striking the World Trade Center.

AAT-20  
September 17, 2001  
6:30 AM



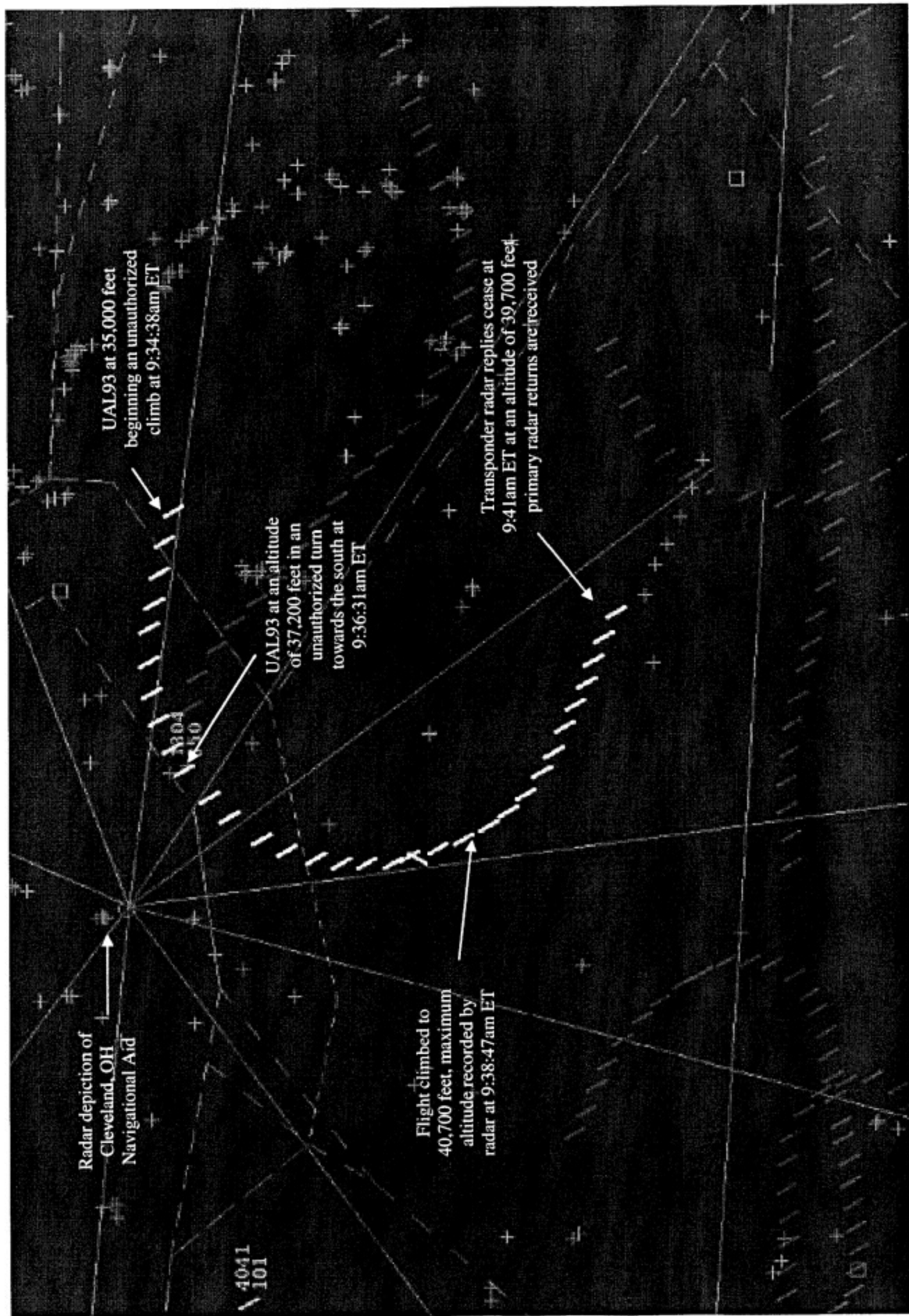
**United Airlines Flight 93  
Newark – San Francisco**

EWR ATCT	0842:00	Aircraft departs
N90, ZNY		No indication received of abnormalities from aircraft during normal handling at these facilities.
ZOB Sector 49	0925:14	Aircraft checks on frequency at FL 350, normal transmission
	0928:19	First audible transmission of a problem from background cockpit noises
	0929:29	Abnormal communications
	<b>0934:38</b>	<b>Unauthorized climb begins</b>
	<b>0936:31</b>	<b>At 37,200 feet the aircraft makes an unauthorized turn towards the south</b>
	<b>0938:47</b>	<b>Flight climbed to 40,700 feet, maximum altitude recorded by radar</b>
	<b>0941:00</b>	<b>Beacon code lost and re-acquired 3 times with the last primary radar return observed by ZOB at 0942:23 (via SATORI review)</b>
	0947:00	ZOB notifies PIT of aircraft inbound
	0952:00	PIT evacuated
	0956:00	Transponder code observed for the last time.
	<b>0957:19</b>	<b>Last Radar return. (Analysis of PIT ASR-9 radar showed a fast moving, southeast bound unidentified primary radar target. It was believed to be UAL93)</b>
	1000:00	Controller states "think he is at 7500 (feet)" (referring to UAL 93)
	1000:00	The watch supervisor notified AGL ROC of a possible hijack and accident involving UAL93.
	1004:00	Last observation of primary target heading approximately 160 degrees
	1006:00	UAL93 is down (controller to controller on landline)
	1007:00	N20VF reports smoke puffs at his 2:00 position

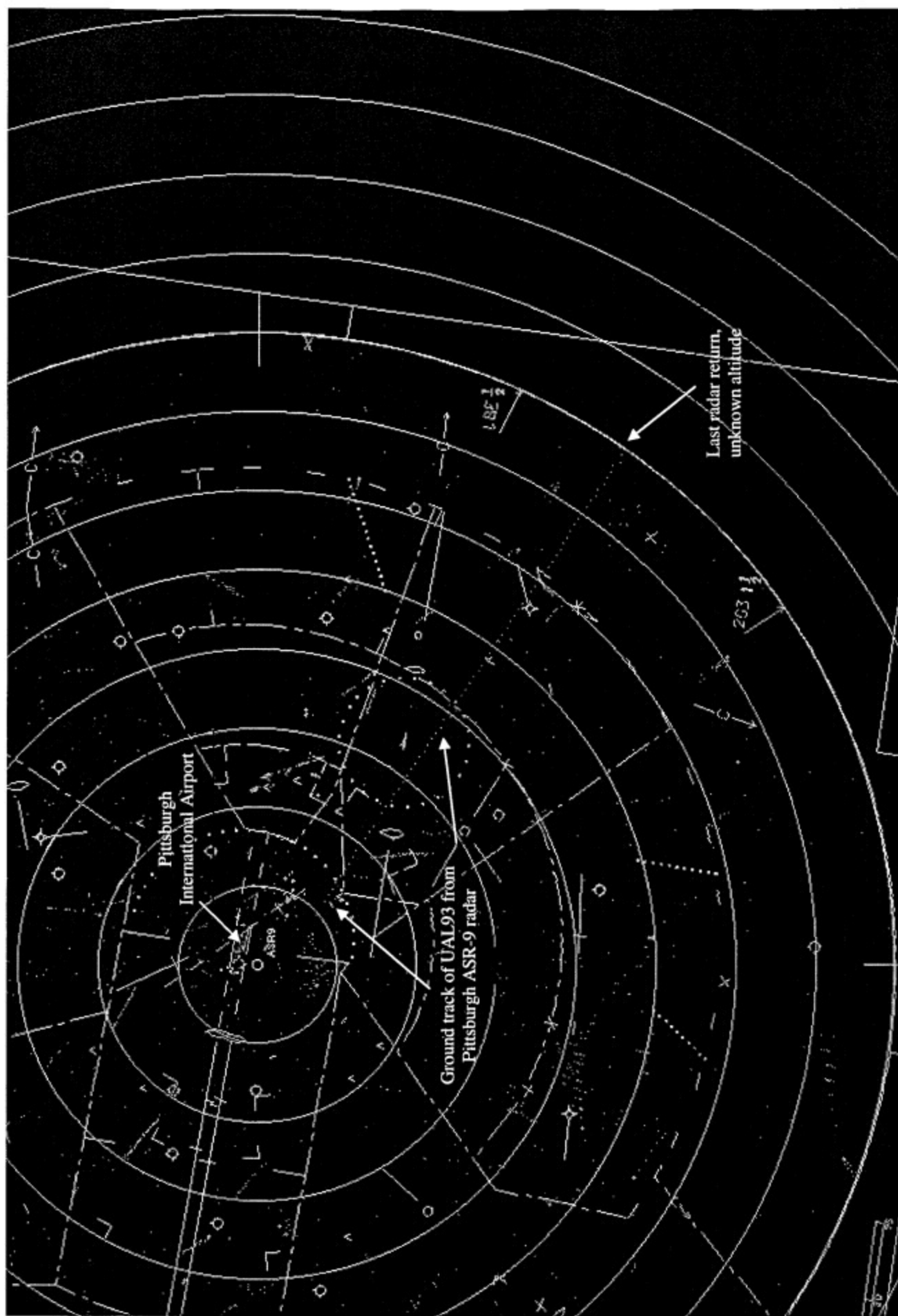
AAT-20  
September 14, 2001  
9:00 a.m.

UAL93, Boeing 757, Radar Track  
By the Cleveland ARTCC Long Range Radar  
September 11, 2001, 10:04am ET  
Prepared by AAT-20 9/17 0900

10



UAL93, Boeing 757, Radar Track  
September 11, 2001, 9:42am ET



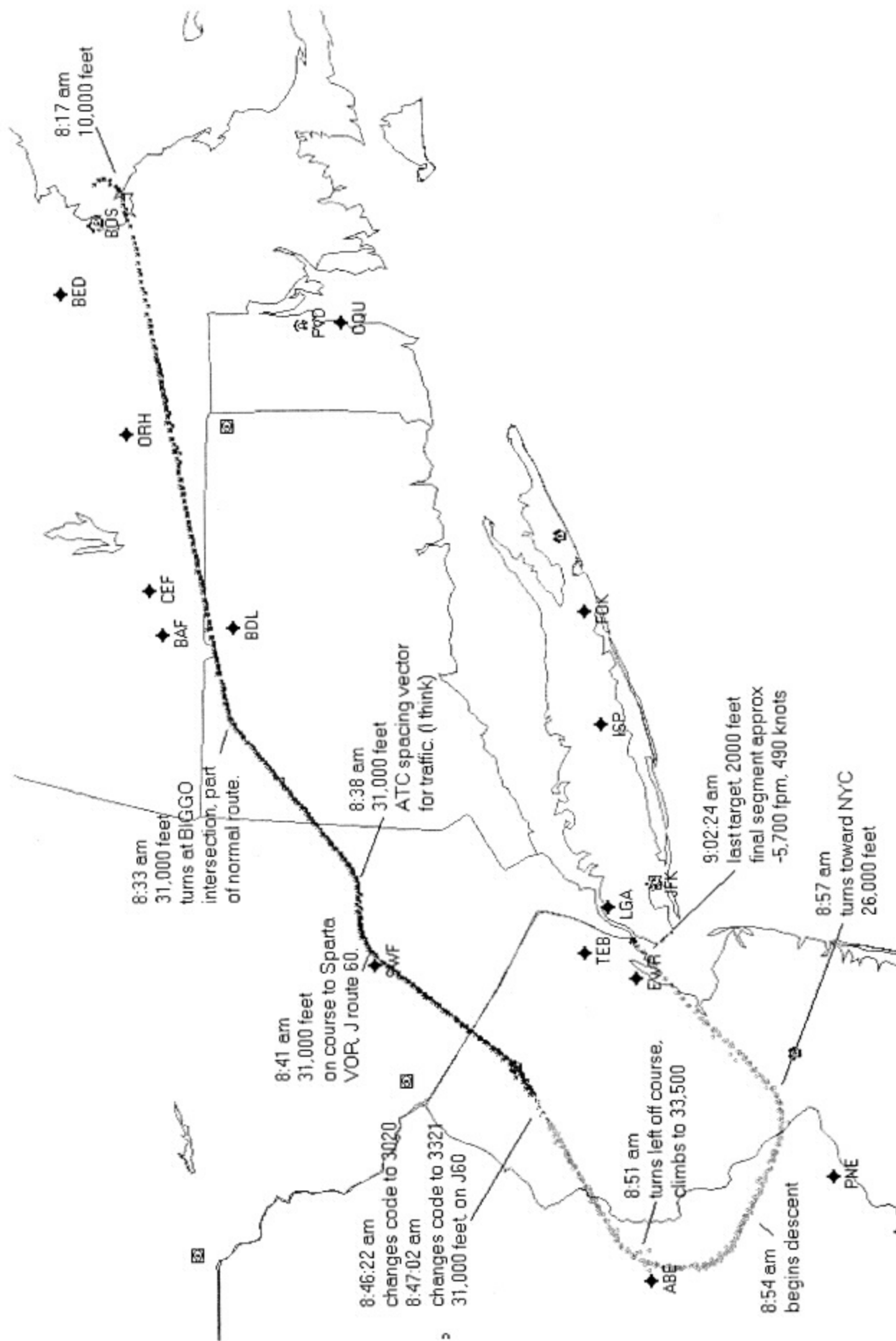


**United Airlines Flight 175**  
**Boston – Los Angeles**

BOS ATCT	0814:00	Flight departed Boston Logan Airport
	0814:44	Flight checks onto Boston TRACON
	0819:09	Boston TRACON advises flight to contact Boston Center
ZBW		No indication received of abnormalities from the flight during normal handling at this facility
ZNY Sector 42	0840:34	Flight checks on with New York Center
	0841:00	Flight cleared on course direct to Sparta navigational aid level at 31,000 feet
	0841:32	Flight announces that "We figured we'd wait to go to your center, we heard a suspicious transmission on our departure out of Boston. Someone keyed the mike and said 'everyone stay in your seats'"
	0841:56	Flight transmits "it cut out" (Controller on land line)
	0842:14	Flight transmits "Did you copy that?" (Controller on landline)
	0843:12	Flight turns towards the southwest, without ATC clearance
	0845:00	ZNY and ZBW notify N90 of possibly 2 hijack inbound
	<b>0846:34</b>	<b>The last transponder return at 31,000 feet</b>
	0846:48	New York Center loses flight tag. Transponder no longer being received.
	0850:00	EWR advises of possible aircraft crashing into World Trade Center
	0851:10	Flight is observed in a left turn, off course and begins an unauthorized climb
	0851:53	Controller asks flight to recycle transponder code to 1470
	0851:53	Controller repeatedly calls flight
	0852:14	New York Center calls Delta Flight 1489 to make sure ATC radios are working
	0852:53	Controller asks previous controller if UAL175 switched back to earlier frequency
	<b>0853:23</b>	<b>Controller asks other sector controllers if they see UAL175 anywhere on the radar. Asks another controller about an unidentified radar target on a transponder code of 3321 at an altitude of 33,500 feet and indicating a climb. Controller states he doesn't know who the target is and states "...we may have a hijack, we have some problems over here right now"</b>
	0853:37	Controller tells other controllers that he can not get a hold of UAL175
	0854:18	Flight is observed in an unauthorized descent
	0857:00	Flight is observed in a left turn towards New York City. Flight stabilizes on a ground direct to the World Trade Center
EWR Radar	<b>0900:02</b>	<b>Last transponder radar target is observed at an altitude of 18,000 feet as the flight is descending at a ground speed of 480 knots, 24 nautical miles from the World Trade Center.</b>
	0902:00	The flight crashes into the World Trade Center

# UAL175, RADAR PLOT

Source: NTSB, ASA-30





**United Airlines Flight 175**  
**Boston – Los Angeles**

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	0902:00	The flight crashes into the World Trade Center

JAL175

8:46:18am ET

Ground track of UAL175 from Newark ASR-9 radar

Ground track of UAL175 from Newark ASR-9 radar

Last radar return, altitude 18,000 feet MSL, ground speed 480 knots

8:58:21am ET

JFK International Airport

Last radar return, altitude 18,000 feet MSL, ground speed 480 knots 9:02:00am ET

Radar depiction of World Trade Center

JFK International Airport

Newark International Airport

Radar depiction of World Trade Center

Radar depiction of World Trade Center

LaGuardia Airport

Last radar return 24 nautical miles from World Trade Center at 9:00:02am ET

LaGuardia Airport

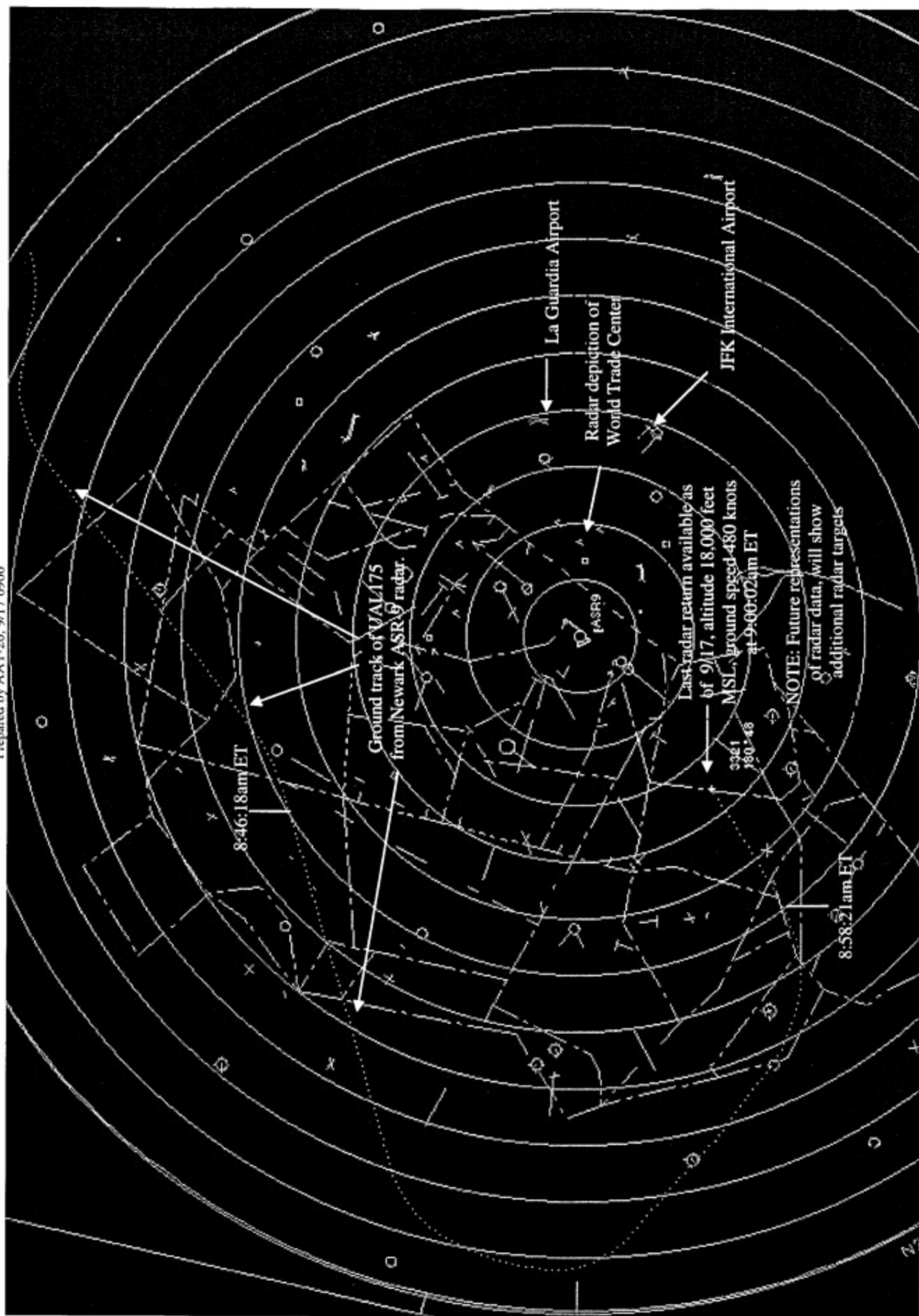
Radar data tag shows flight on 3321 transponder code, altitude 18,000 feet, ground speed of 480 knots

Ground track of UAL175 from unassigned transponder beacon code 3321

JFK International Airport

UAL175, Boeing 767, Radar Track  
By Newark Airport ASR-9 Radar Antenna  
September 11, 2001, 9:03:14am ET  
Prepared by AAT-20, 9/17 0900

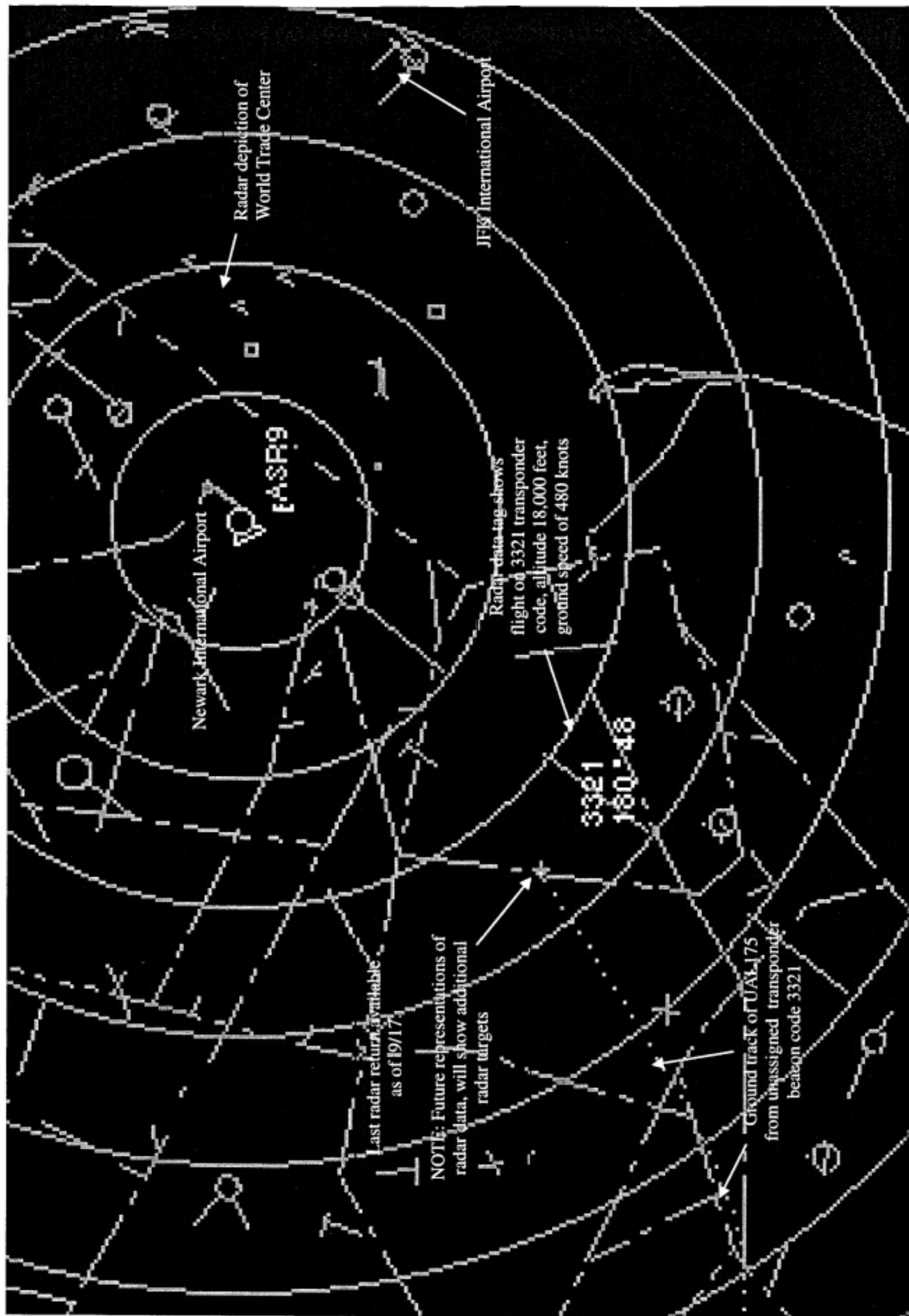
8



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UAL175, Boeing 767, Radar Track  
 By the Newark Airport ASR-9 Radar Antenna  
 September 11, 2001, 9:03:14am ET  
 Prepared by AAT-20, 9/17 0900





New York ARTCC  
Personnel Statement  
Bruce S. Barrett (BB)  
OMIC 1030-1830 UTC  
September 11, 2001

At approximately 1238 ZBW advised ZNY Area C that AAL 11/B767 BOS to LAX negative transponder, no communications, last reported attitude FL290. STMC's and TMC's were now tracking aircraft movement. Was asked by STMC to join telcon with CF2/BOS and military to discuss again situation. At approximately 1240 told STMC to check with AAL dispatch who said crew may not be in control of aircraft. At this time C supervisor advised area B had point out on AAL 11 and they initiated a track. Due to unknown intentions area advised keep other aircraft clear of AAL 11. At approximately 1242 told STMC point out to N90. More phone calls received including AEA ATD. Aircraft proceeded SW past JFK VOR-told STMC to point out to ZDC ARTCC and ZNY oceanic. At approximately 1248 2 ELT's reported in vicinity of JFK and primary target was lost. At approximately 1250 were an aircraft had crashed into WTC at approximately 1252. Both EWR ATCT and CPC's watching, CNN confirmed fire at WTC. Still attempting to locate AAL 11. At approximately 1301 Area B CIC advised UAL 175 BOS-LAX on code 3321 wrong direction sector 42. At approximately 1303 target on UAL 175 disappears. ZNY advised an aircraft hit WTC. At approximately 1304 I directed STMC's/TMC's to stop all traffic into ZNY. At approximately 1305 I advised ZNY ATM and facility FACREP we are going to ATC ZERO, but we will not relinquish our airspace. At approximately 1305 in conversation with oceanic supervisors advised all international aircraft within ZNY oceanic to divert to alternate destinations. I reserve the right to amend this statement.





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## **ALERT BULLETIN**

All reports are based on preliminary information and are being investigated by the appropriate authorities. Public availability to be determined under 5 U.S.C 552.

**Distribution of this document is limited. Duplication, reproduction, or further distribution shall not be made unless approved by AAT-1 or AAT-20.**

**SUBJECT:** Aircraft Accident, UAL 175/B762 Boston, MA to Los Angeles, CA

**CREW/PASSENGER INFO:** Unknown, All presumed Fatal

**DATE/TIME:** 9/11/01 at 9:03am ET

**LOCATION:** World Trade Center, NYC

**WEATHER:** VFR

**SUMMARY:** UAL 175 departed Boston without incident at approximately 8:14am ET and somewhere in the southern Pennsylvania area, the aircraft changed transponder codes from that which had originally been assigned. The target then turned towards the east and descended. This aircraft continued to descend and proceed west and south of the Newark, NJ airport. The aircraft continued the descent and tracked northeastbound. The last altitude observed from the aircraft was 18,000 feet. The last radar return displayed was at 9:00am ET, 18 miles southwest of EWR.

**FOLLOW-UP ACTION:**

Recorded radar and audio tapes are still being reviewed.

AAT-20

October 27, 2003, 7:41 am ET, supersedes all previous editions

EZ/0741 AA

Distribution: AAT-1/2/3/20/100/200; /ATP-1; AAI-100; Axx-500; File



## **Briefing Item**

### **United Flight 175**

#### **Summary:**

United Airlines Flight 175 (UAL175), a Boeing 767, departed Boston Logan at 8:14am Eastern Standard Time, destined Los Angeles. The aircraft proceeded westbound, on course, as instructed. At 8:46am, in the vicinity of Kingston, New York, Boston Air Route Traffic Control Center (ZBW) lost radar tracking due to the loss of the aircraft transponder. Primary target information indicated the aircraft had changed route of flight towards the east. Newark ASR-9 radar tracked the errant aircraft in a large arc from north of the airport to the west and back towards the east. Final radar data tracking occurred approximately 18 miles southwest of the airport at 18,000 feet with a ground speed of 480 knots. At 9:07am the aircraft struck the World Trade Center's south tower.

AAT-20

September 12, 2001

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Updated September 13, 2001, with receipt of additional facility data –

New York Air Route Traffic Control Center (ZNY), not ZBW, was working the aircraft when radar contact and radio communications were lost at 1251Z.



## **INFORMATION AAT-1**

All reports are based on preliminary information and are being investigated by the appropriate authorities. Public availability to be determined under 5 U.S.C 552.

**Distribution of this document is limited. Duplication, reproduction, or further distribution shall not be made unless approved by AAT-1 or AAT-20.**

**SUBJECT:** Suspected Aircraft Accident and Hijack Notification Procedures

**SUMMARY:** When a controller becomes aware of the simultaneous unexplained loss of radio communications and radar contact with an aircraft, immediate notification to Facility Management (through the Operations Supervisor [OS] or Controller-in-Charge [CIC], if appropriate), shall be made. Then further notification is dependant on one of the following (which ever is the earliest): (1) The Washington Operations Center (WOC) shall be notified of accidents or suspected accidents within two hours of the original accident report; or, (2) 30 minutes have passed since its estimated time of arrival over a specified or compulsory reporting point or at a clearance limit with the area of jurisdiction, or its clearance void time.

Under normal circumstances the notification process from controller to WOC could be as little as 7-11 minutes or as long as two hours. However, recognition and awareness of the suspected aircraft accident is dependent upon the sector conditions, workload, traffic volume, and the quality/limitations of the radar system. These are factors that are cannot be factored into any timetable. Within the same time period that notification is being made to the Regional Operations Center (ROC), other persons, offices, and agencies are notified of the suspected aircraft accident. These notifications include the appropriate authorities for initiation of search and rescue operations.

When a controller knows or believes that an aircraft is being subjected to unlawful interference, immediate notification to the Facility Management (through the OS or CIC, if appropriate) shall be made. The Facility Management notifies the ROC; the ROC notifies the WOC; the WOC notifies FAA Security; and FAA Security notifies the Federal Bureau of Investigation (FBI) and National Military Command Center (NMCC). Although other notifications are made to other persons, offices, and agencies, the procession of notification, which provides the quickest notification to the FBI and NMCC, should be initiated first.

Under normal circumstances, once the controller becomes aware of the situation, the notification process, from controller to FBI/NMCC should only take approximately 7-11 minutes.

AAT-20

October 27, 2003

jm/1017 MISC

Distribution: AAT-1/2/3/20/100/200; ATP-1; AAI-100; Axx-500; File





	<b>AAL11</b>	<b>UAL175</b>	<b>AAL77</b>	<b>UAL93</b>
<b>First Critical Sign</b>	<b>08:20<sup>1</sup></b>	<b>08:46<sup>2</sup></b>	<b>08:56<sup>3</sup></b>	<b>09:28<sup>4</sup></b>
<b>NORAD** NEADS*** Notification</b>	<b>08:40*</b>	<b>09:05*</b>	<b>09:24*</b>	<b>09:16*</b>
<b>Crash time</b>	<b>08:46</b>	<b>09:03</b>	<b>09:38</b>	<b>10:04</b>
All times are Eastern Daylight Time				

1. AAL11 secondary radar return (transponder) lost.
2. UAL175 assigned transponder code of 1470 changes; communications lost.
3. AAL77 secondary radar return (transponder) and radar contact was simultaneously lost.
4. Two radio transmissions of unintelligible sounds: possible screaming, sounds of a struggle and "get out of here" is heard over the Cleveland Air Route Traffic Control Center radio. The mode C for UAL93 has descended 700 feet from assigned altitude

\*These times are derived from the review of the NEADS log.

\*\*North American Aerospace Defense Command (NORAD)

\*\*\*Northeast Air Defense Sector (NEADS)

	<b>AAL11</b>	<b>UAL175</b>	<b>AAL77</b>	<b>UAL93</b>
<b>First Sign</b>	<b>08:20<sup>1</sup></b>	<b>08:46<sup>2</sup></b>	<b>08:56<sup>3</sup></b>	<b>09:28<sup>4</sup></b>
<b>Probable time flight was known to be in distress</b>	<b>08:25<sup>5</sup></b>	<b>08:52<sup>6</sup></b>	<b>08:56<sup>7</sup></b>	<b>09:32<sup>8</sup></b>
<b>NORAD** NEADS*** Notification</b>	<b>08:40*</b>	<b>09:05*</b>	<b>09:24*</b>	<b>NA*</b>
<b>Estimated Crash time</b>	<b>08:46</b>	<b>09:03</b>	<b>09:38</b>	<b>10:04</b>
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4. Two radio transmissions of unintelligible sounds: possible screaming, sounds of a struggle and "get out of here" is heard over the Cleveland Air Route Traffic Control Center radio. The mode C for UAL93 has descended 700 feet from assigned altitude
5. A radio transmission is heard telling passengers "nobody move everything will be ok if you try to make any moves you'll endanger yourself and the airplane just stay quiet."
6. UAL175 has failed to respond to several calls and is observed turning off course.
7. Aircraft is presumed crashed over Pennsylvania.
8. UAL93 is unresponsive to multiple calls from the controller. Additionally, there are three transmissions indicating a possible struggle aboard an aircraft.

\*These times are derived from the review of the NEADS log.

\*\*North American Aerospace Defense Command (NORAD)

\*\*\*Northeast Air Defense Sector (NEADS)

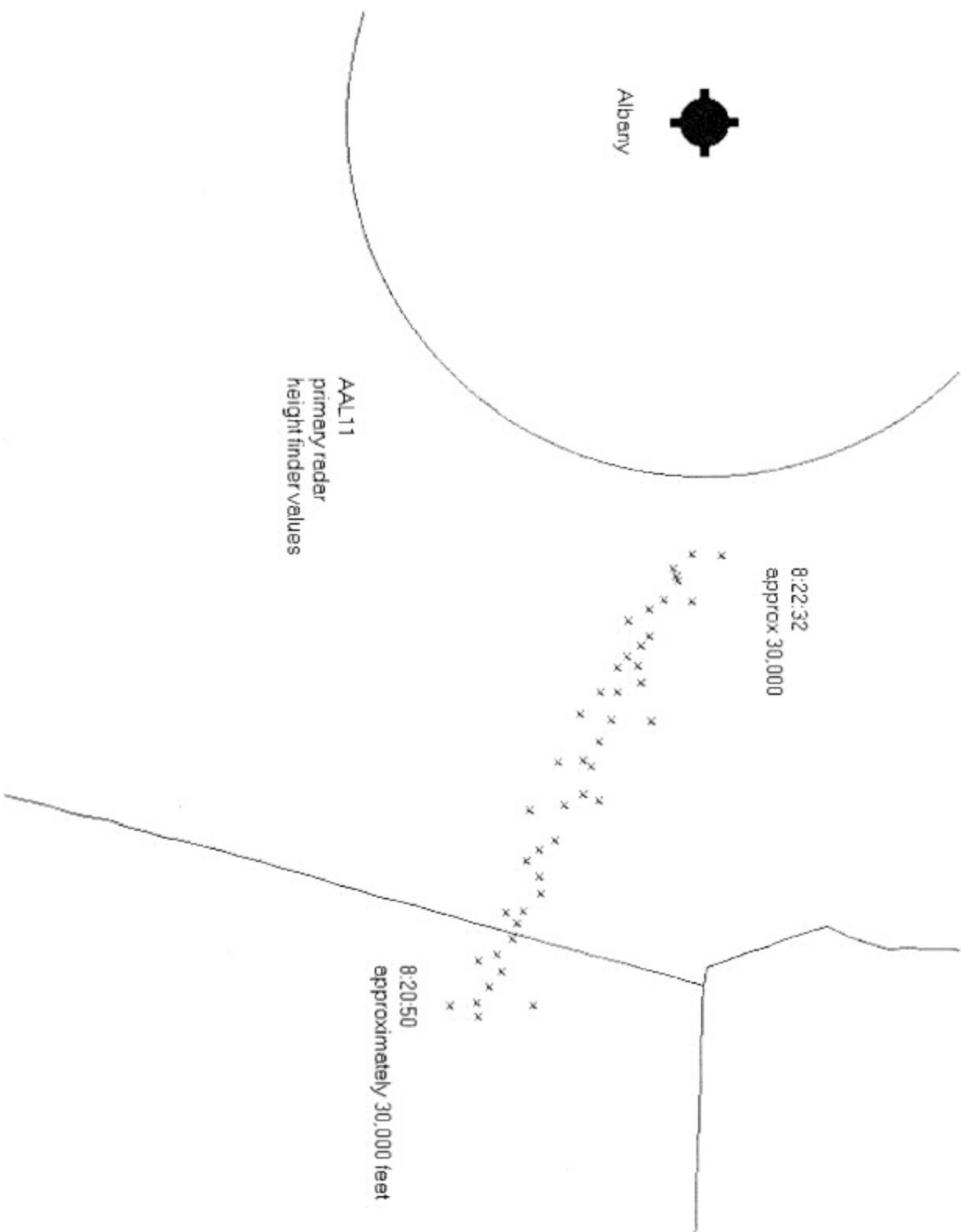
Albany

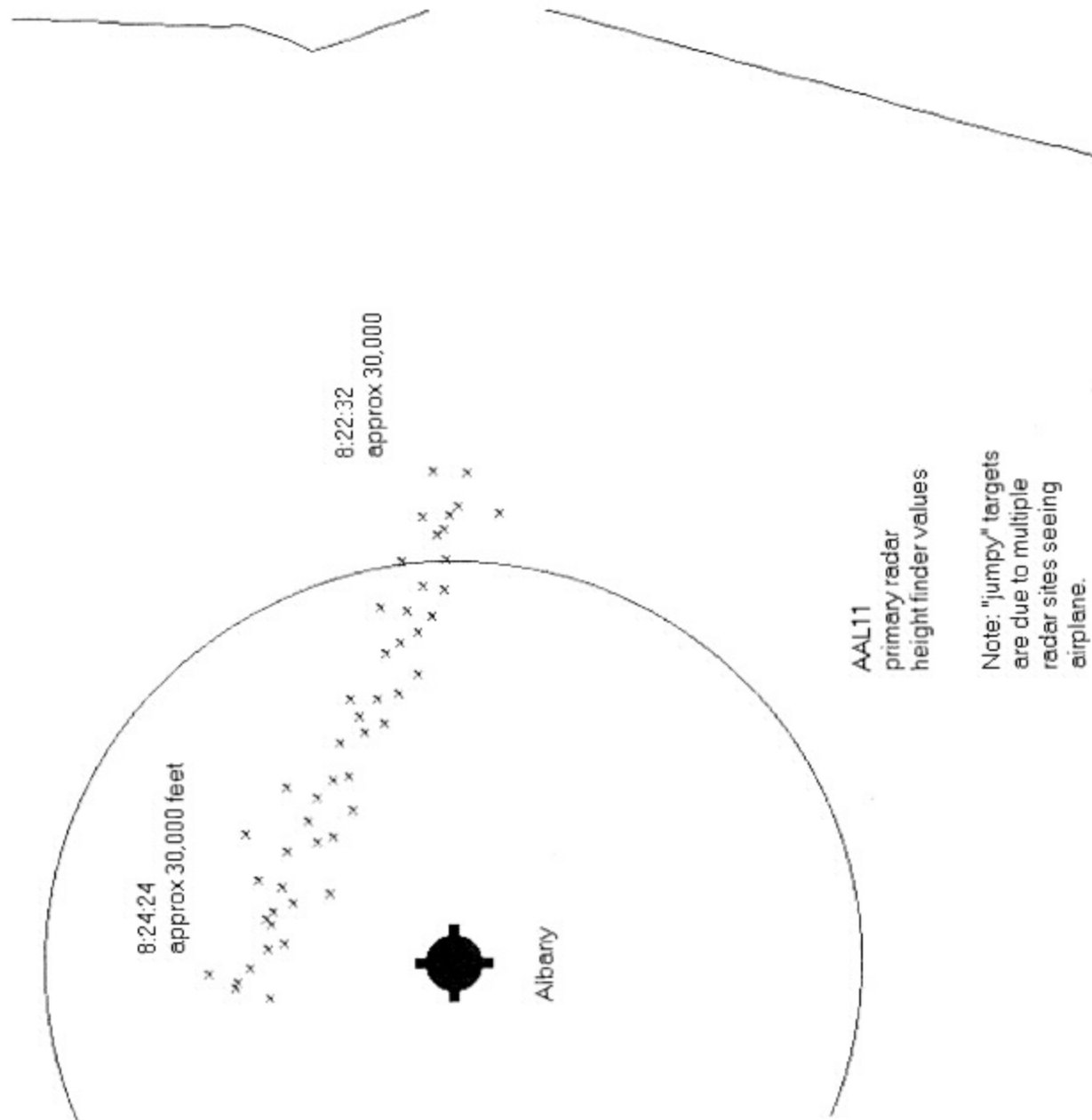


AAL11  
primary radar  
height finder values

8:22:32  
approx 30,000

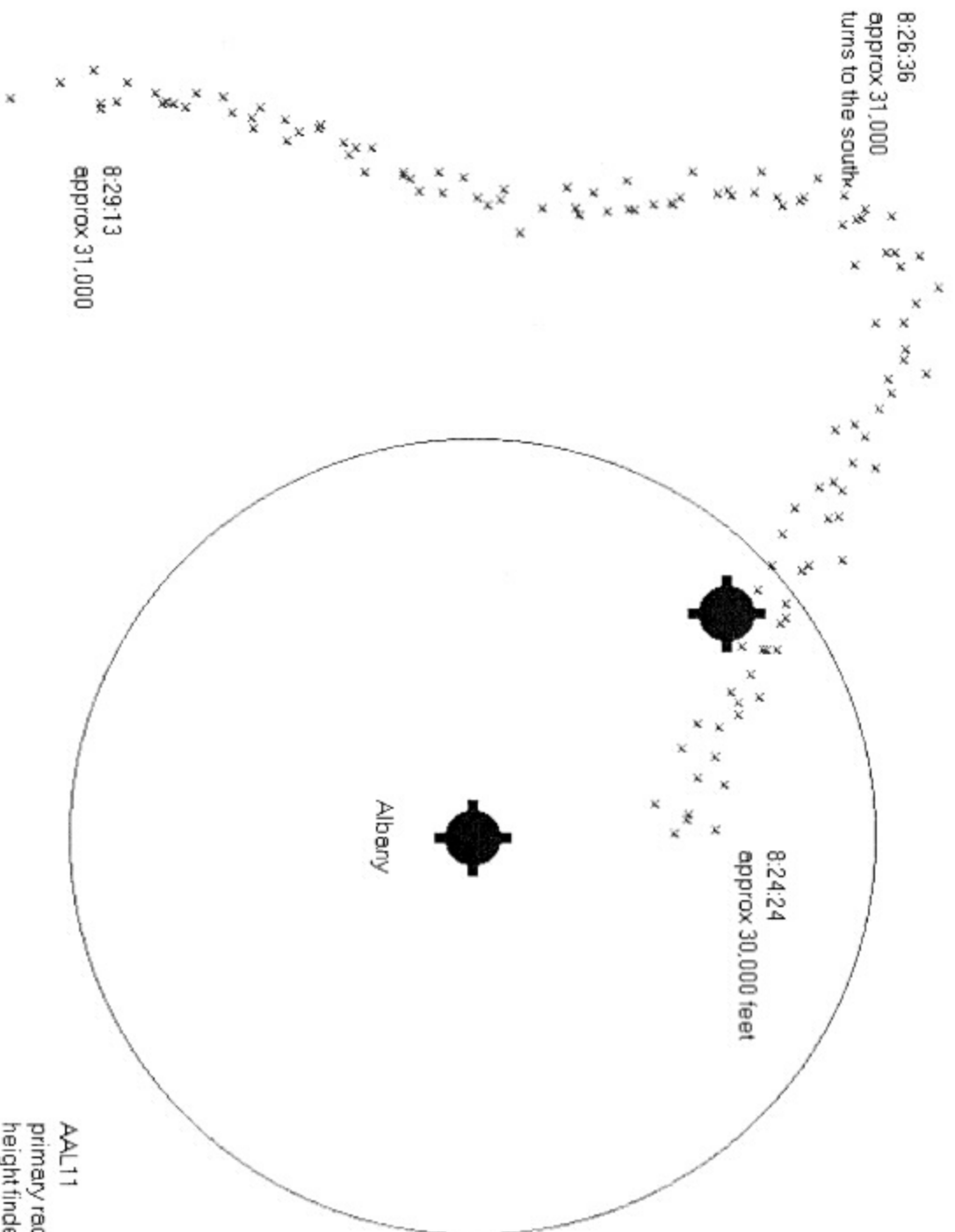
8:20:50  
approximately 30,000 feet



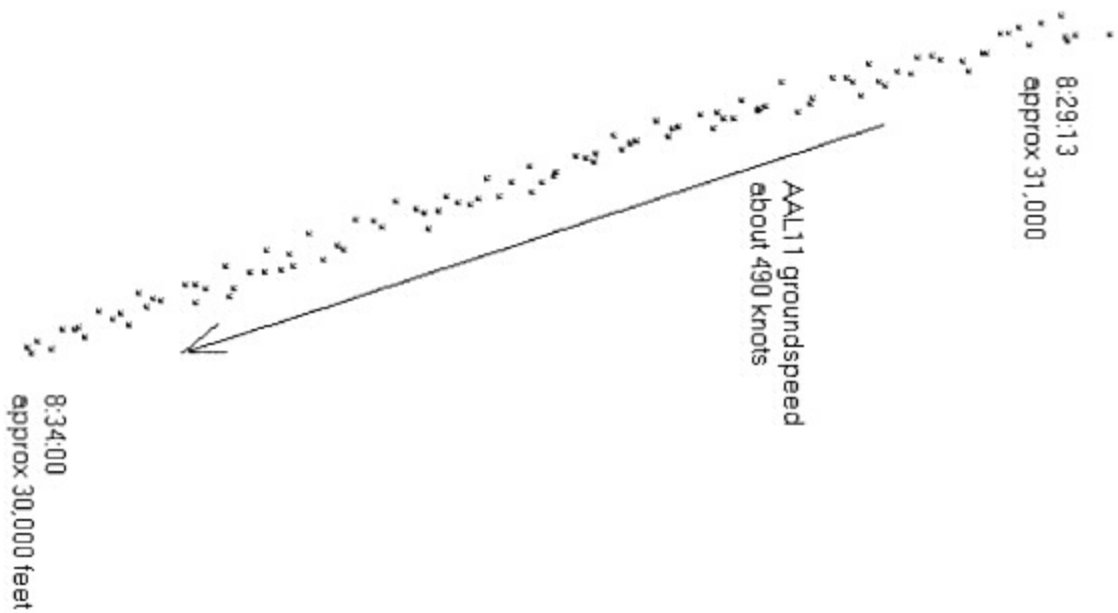


AAL11  
primary radar  
height finder values

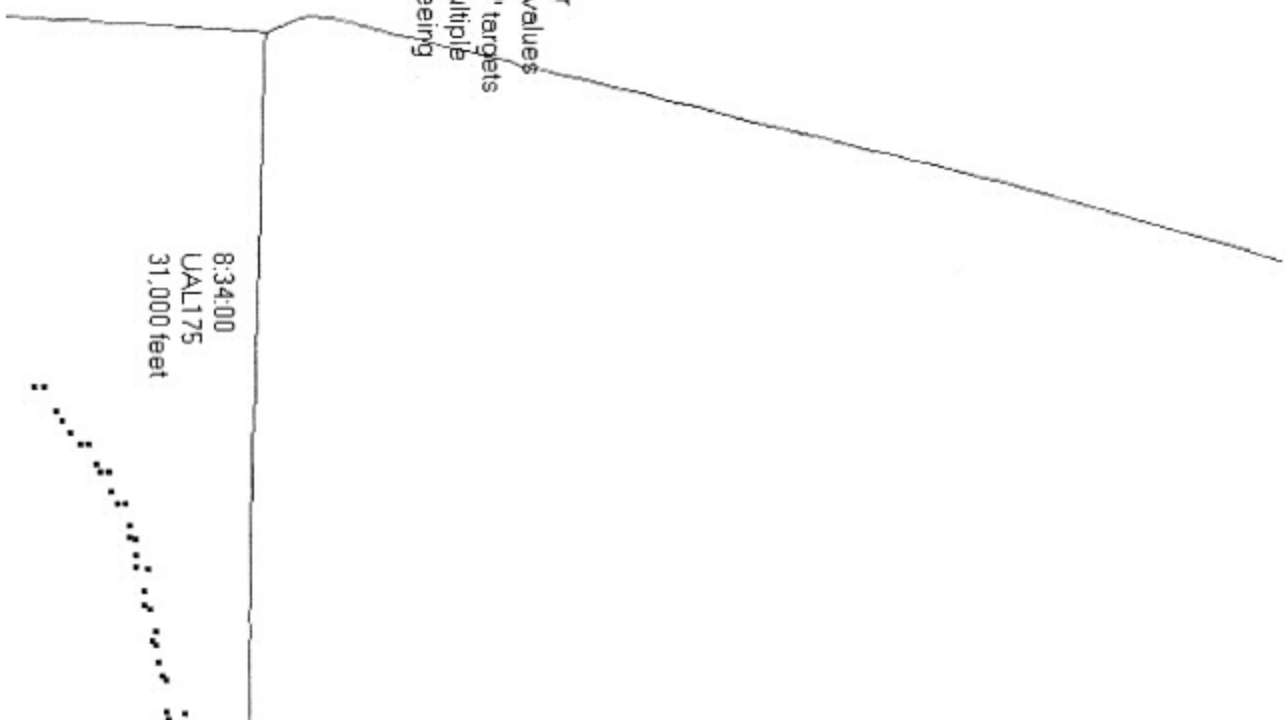
Note: "jumpy" targets  
are due to multiple  
radar sites seeing  
airplane.



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AAL11  
primary radar  
height finder values  
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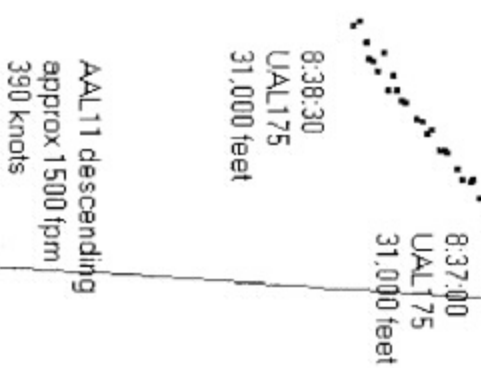


8:34:30  
AAL11 begins  
descent

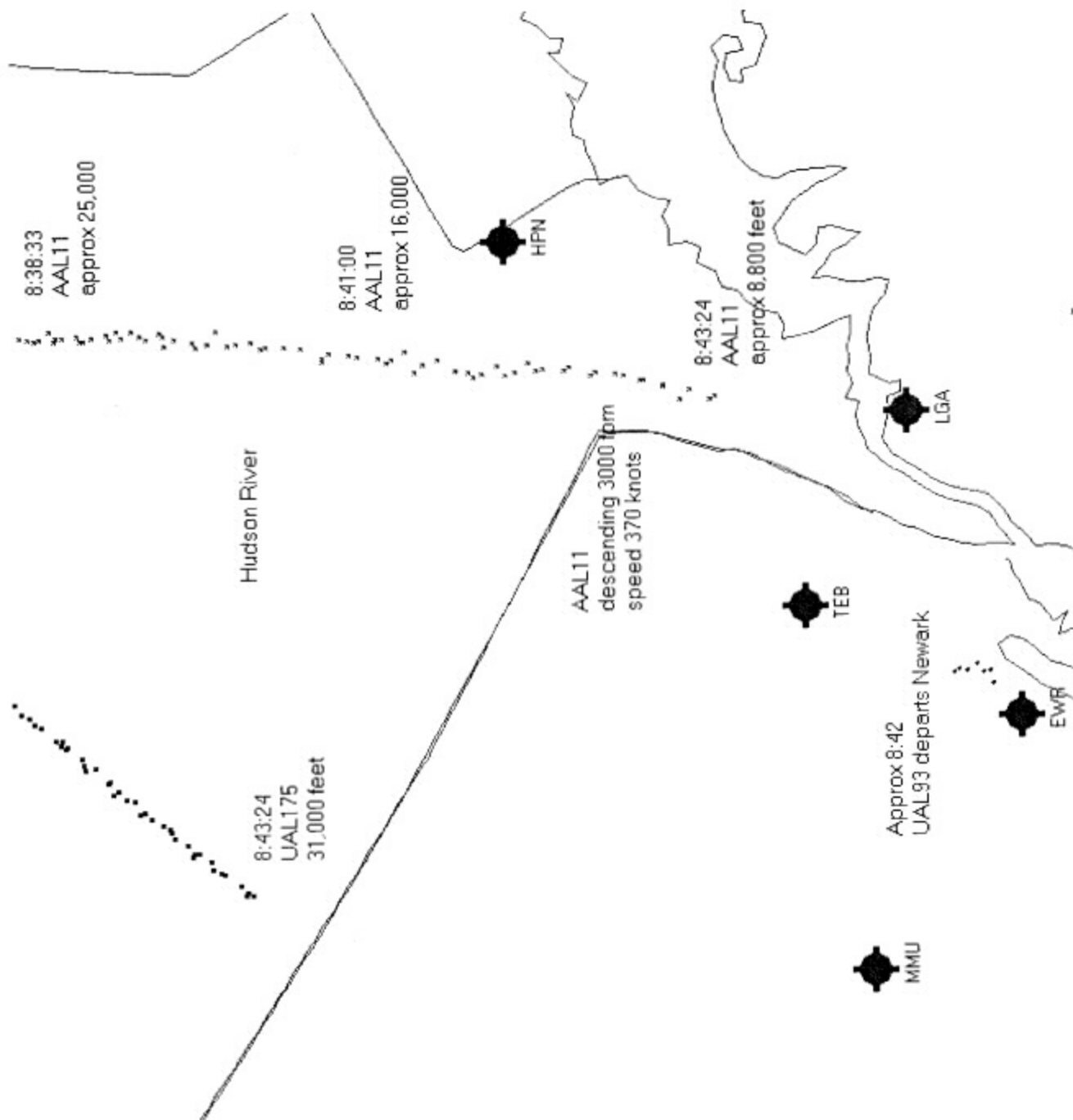
Newburgh, NY



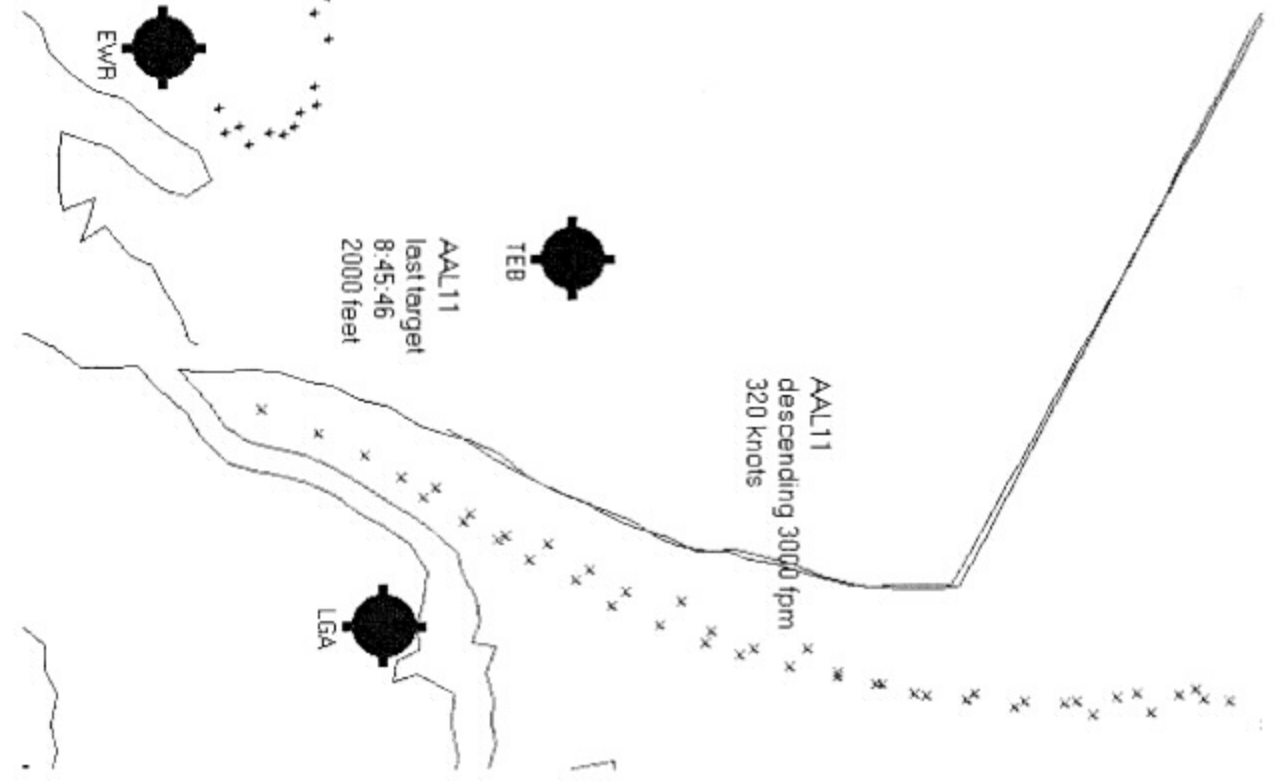
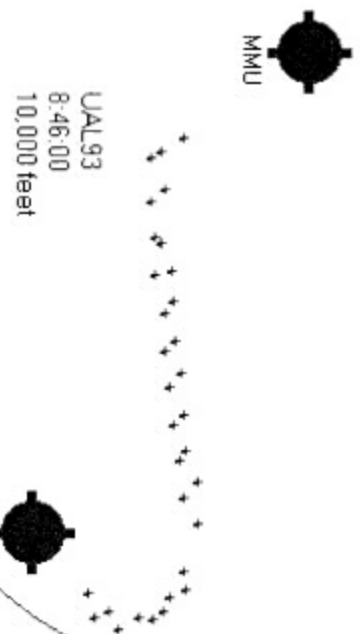
Closest proximity  
approx 8.5 miles  
3,000 feet

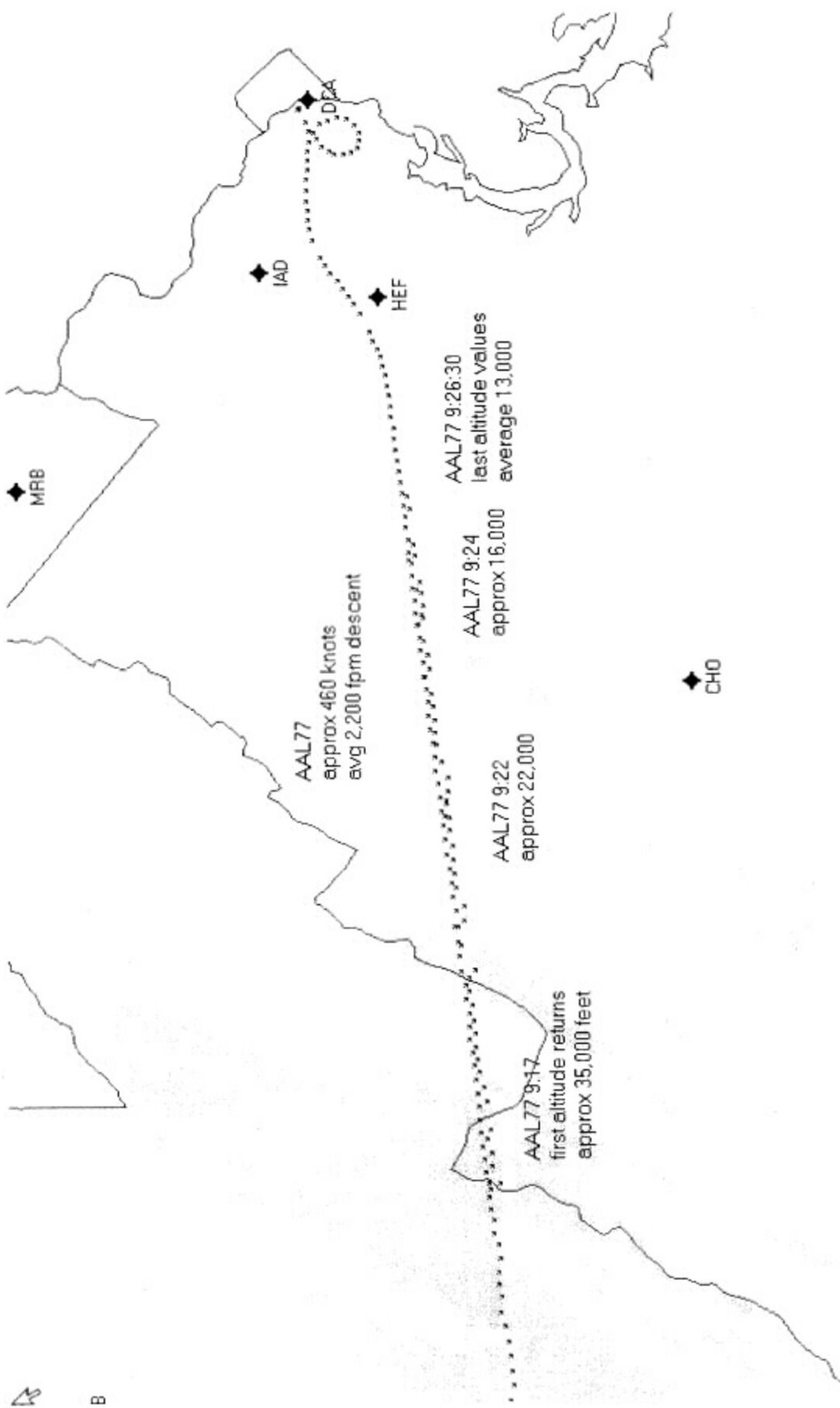


8:34:30  
UAL175  
31,000









**American Airlines Flight 77 (AAL77)**

**Washington Dulles - Los Angeles**

**All times indicated are Eastern Daylight Savings Time**

- 0812:29 Dulles Airport Traffic Control Tower (IAD) issued taxi instructions to AAL77.
- 0820:00 AAL77 began takeoff roll, runway 30, Washington Dulles International Airport. All communications with IAD and with Dulles Departure Control were routine and normal.
- 0825:49 **AAL77 established radio contact with Washington Air Route Traffic Control Center (ZDC), "Center, American seventy-seven with you passing one-three decimal zero (thirteen thousand feet) for one-seven-thousand (seventeen thousand feet)." All communications between ZDC and AAL77 appear routine and normal. AAL77 was subsequently handed off to the Indianapolis Air Route Traffic Control Center (ZID).**
- 0840:14 AAL established radio contact with ZID. "Center, American seventy-seven with you, level three thirty (thirty-three thousand feet).
- 0840:16 ZID acknowledged, "American seventy-seven, Indy center, roger, squawk three-seven-four-three." (Squawk is a control instruction to change the transponder setting within the aircraft). AAL77 was subsequently instructed to climb to thirty-five thousand feet and later cleared to navigate direct to the Falmouth navigational aid. When ZID acknowledged AAL77, the sector was responsible for fourteen aircraft; additionally four aircraft were in handoff status to this sector.
- 0850:00 Washington Operations Center activated a Tactical Net at the request of Civil Aviation Security Intelligence (ACI).
- 0850:51 AAL77 acknowledged the clearance to Falmouth. This was the last radio communication with this flight.
- 0854:43 **AAL77 began a left turn towards the south without air traffic authorization. The altitude indicated thirty-five thousand feet. Shortly after the turn, the aircraft was observed descending.**
- 0856:19 **Secondary radar return (transponder) indicating aircraft speed, altitude, and flight information is lost on ZID radar displays. There was no longer any radar return information (either primary or secondary) on AAL77 indicated at the ZID radar displays. Note: The initial review of radar data, and controller personnel statements conducted by ZID did not indicate any primary or secondary radar returns were displayed.**

0856:32 ZID controller attempted to contact AAL77, "American seventy-seven, Indy." There was no acknowledgement. ZID also tried to communicate with AAL77 through American Airlines company radios.

0858:14 ZID also made several attempts to contact AAL77 through American Airlines company dispatch.

0859:00 ZID controllers began coordinating with other controllers to protect the airspace and altitude of AAL77's filed route of flight.

0909:00 ZID notified Great Lakes Regional Operations Center a possible aircraft accident of AAL77 due to the simultaneous loss of radio communications and radar identification.

0915:00 *This time is approximate based on personnel statements from ZID.* The ZID Operations Manager requested that the Traffic Management personnel notify Air Force Search and Rescue of the missing and possibly downed aircraft. The Operations Manager also contacted the West Virginia State Police advising them of a possible downed aircraft and asks if they have any reports of a downed aircraft.

0920:00 *This time is approximate based on personnel statements from ZID.* The ZID Operations Manager contacted the Chicago Air Route Traffic Control Center (ZAU) and advised the ZAU Operations Manager of his concern that AAL77 may have been hijacked and that he (ZAU Operations Manager) should be on the look out (based on events occurring in New York)..

0924:00 Great Lakes Regional Operations Notified Washington Operations Center of the simultaneous loss of radio communications and radar identification.

0925:00 ***Between 0925:00 and 0930:00, this time is approximate based on personnel statements from Dulles Terminal Radar Approach Control (IAD). Several IAD controllers working radar positions in the facility observed a primary radar target tracking eastbound at a high rate of speed. Note: The unknown aircraft in this and all following times was later confirmed to be AAL77.***

0933:00 *This time is approximate based on personnel statements from IAD.* An Operations Supervisor at IAD advised the White House Office of the United States Secret Service of an unknown aircraft heading in the direction of the White House, fast moving. Meanwhile, a controller was providing the same information to controllers working at the Ronald Reagan Washington National Airport Traffic Control Tower (DCA). The IAD Operations Supervisor also provided continuous updates on a critical event teleconference established at the Federal Aviation Administration Headquarters building.

- 0933:00      *This time is approximate based on personnel statements from DCA.* An Operations Supervisor at DCA was advised by IAD of the unknown aircraft. The Operations Supervisor at DCA immediately notified the White House Office of the United States Secret Service of the unknown aircraft's location and provided continuous updates.
- 0936:00      Personnel at DCA issued traffic advisories on the unknown aircraft to a military C130 aircraft that had departed Andrews Air Force Base. When the C130 aircraft (GOFER06) reported the unidentified aircraft in sight, the pilot was instructed to follow the unknown aircraft.
- 0938:00      **GOFER06 reported that the unknown aircraft had crashed into the western side of the Pentagon.**

AAT-20  
September 17, 2001  
6:30 AM



Interviews 10/23/01

John Wirth, primary controller involved with UAL93. He is surprised that no one has been here to interview. He was working UAL93. He was in for 40 minutes prior to it. Things started to filter in about the WTC, and then they were shut off by NY. He then heard the second one hit the WTC. I think I heard them killing the crew, and that the crew was not flying the aircraft. Initially they thought it was Delta. Then he saw UAL pick up airspeed and thought he was going to the Perry nuclear power plant. He knew then because the aircraft was not answering. He was first aware when he heard the struggle, then he called airplanes and UAL did not respond. Then he thought they were going for a midair because they climbed and turned towards other aircraft. The most clear words he heard were "there is a bomb on board." No one was ready to believe that this was happening. Then he climbed to 410. The Satori shows him going south,. When did the transponder turn off? When he turned south. There was a Midex they cranked out of there and they pointed the aircraft out to everyone below. When he put up the primaries, he guessed he was going low. ExecJet then said that he was still there. ExecJet had him visual. He was going to ask him to follow the aircraft. Would he have to descend through traffic, and then maybe he might have gotten shot down too? They got the d-side out and then Mark Saunders came in and did a lot of point outs. He was keeping aircraft 20-30 miles away to be safe. He was thinking is this legal, ethical, if I ask someone to follow him and then get shot down. He's been here for 31 and a half years and has not had an error. Does it bother him? No, not really, he has had accident aircraft before, he feels bad that he had no control over it. He knew the aircraft was diving. He stated that there was no mayday call and no transponder changes. He believes that the hijackers were in the cockpit jumpseat. When he heard the transmissions, and knew that the WTC flights had taken place, he believed it was a suicide mission and treated the aircraft like a guided missile.

The watch desk believed that DAL1989 fit the profile and then he took the handoff on the aircraft. DAL then advised that company wanted him to land as soon as possible and to go to Cleveland. There was a Cactus behind the Delta. The watch desk then advised him that Delta was a confirmed bomb threat and hijack. He did not believe it. He thought that UAL93 was tracking other aircraft with TCAS. He believed that the hijackers were trying for a midair. He doesn't know what a safe distance is. He wanted to outguess where the hijackers were going to turn. What type of a briefing should people have on this? Satori? He wanted to know what was legal and ethical and about following the hijack aircraft. He wanted ExecJet to tail him if they were willing to do it. If the weather was worse, he might have asked other aircraft to turn off the transponders and then they could not be tracked on TCAS. How would we brief this? Should there be protocol? Just use common sense, keep other aircraft away, then he knew it was not a normal hijack. They didn't know why he was in Cleveland, but then he realized that he was going for somewhere else, and control the ones you can. Probably would not be a bad idea to have a protocol regarding this. He said that

everyone knows the hijack protocol that we have had for 30 years and it would be easy to take out the crew....everyone knows what we do in response to a normal hijack.

He is a little antsy when he hears some foreign pilots. No one expected this. What was bothering him was that he wasn't sure if he should tell them to lock the cockpit doors. Ashcroft flew through when he stayed on for the bomb threat, the sup got on to tell him he had to land. The pilot insisted that he goes to DC. He was the only one up. Do you know we have on board here? He knew, the guy that got only 50% of the senate vote. The pilot then stated that he would get the president to authorize it. He then told him that the tower was evacuated. He then said he would go to Richmond. The pilot then asked for a route, and he was not sure about the issuing routes over the freq. The sup then told him that he had to remain clear of the DC area or he might get shot down.

Dave Leister – he started out and then he had someone plug in with him. Has he listened to tape? No. Satori? No. What do you remember? He biggest thing was get airplanes out of the way as soon as UAL started to climb, do what he was taught, get everyone out of the way. Was he of the opinion he was trying to hit someone else? No. When we lost transponder we lost him for awhile. Was there a target all the time? There was a primary. He was told to watch Delta just before all this went on. Delta was just leaving the sector and went to CLE. We heard 3 transmissions and then we knew something was going on when he started to climb. He checked with FKL sector and they did not have him. He did not notice any military. Other than those transmissions, he heard nothing else. John said they knew what was going on at the WTC, and the sup had cocked the strip on delta. We didn't suspect anything in our area because it was too far out the DC area. Anything to recommend? Can't do too much different than we have been trained so far. The current technique for asking if it is a trip is a waste of time. Can't think of anything different to do other than two doors to the cockpit. He went through the CISD, they contacted him, but it doesn't seem to bother him. He feels that all scenarios are looked at on an individual basis. It's not like a ship and a distress signal and you send everyone towards him. You need to inform all other aircraft when there is a hijack going on. It changed when he began to catch the airplane in front. He was surprised, he got some reports on people giving altitudes leaving. Seems like an aircraft saw him going trough 24, he is going down and way past the barber pole.

Mike Zientarski

Zientarski – has not been interviewed by anyone. He wrote a statement. He plugged in to track right after initial check in. The aircraft then descended 500 feet and then climbed, FKL sector called to check the altitude. He missed the initial comments, and he could not understand the other 2 comments that were made. He then grabbed another to help the D-side. Basically it was then getting aircraft out of the airspace. He didn't understand some of the things that



happened on radar. As soon as they got rid of UAL, DAL said they needed to go to CLE and then they shipped him to low, then he went to work the low. DAL then said they needed to go to CLE. He was concerned that the facility was targeted. He was out in the break room when the WTC was hit. He has had no accidents while he has been a controller. He was not in any hurry to come back. He did not think you could do anything any different. The hijackers had a plan and a mission; changes in the airplane would probably be the best. The less people in the cockpit, the better. He does not know how anything like this can happen. The first couple weeks it would creep into his mind a lot, and he got a lot of questions. He wasn't in a hurry to come back; but it would not change how he was going to do anything. It was on at home on TV a lot.

Mark Barnick

Follow up on the 11<sup>th</sup>; any recommendations? He can't give too many, you can't plan for them. If they could do an MBI nationwide it would help. For a lot, it would never happen. It could say here is what happened, sanitize the airspace, clear out above and below, don't assume that the aircraft will go on the filed route. We had the UAL and the Delta, and we were going back and forth, and even doing supervisor briefings, getting people back in the area, get everyone briefed so that everyone knows what has happened and what is involved. Everything was in disarray, it was not just a hijacking, but everything else that went on. There has not been an outbriefing to the facility, and we have not emphasized enough the sensitivity and to not talk to people. After we got everything on the ground, we didn't start the administrative part or the critical stress briefings. The media jumps in when we take a deep breath and regroup. There should be a brief for the FAA employees. He was not aware that Peacock wanted to speak with him. He had no idea when he came in for an afternoon shift and Peacock was gone. The loop needs to be closed. The day happened and then everything moved on. A lot of security after the fact. It would be a recommendation to outbrief the events at least to the people involved. He was surprised that they had sent the 4 controllers home early; the sup was not aware that they left and that no one had gotten statements. No one really knew what to do. In the future, we need to make sure we have statements before the personnel left the building. He felt the area was under control, and the ops managers kept coming in the area and disrupting it, and he wanted them to leave. There was nothing the OM's could do. The area was getting cluttered. There also comes a point that if you are not part of the solution, you are part of the problem. He wanted them to leave and asked them to leave. There were 3 OM's in his area and they were all passing information. He just wanted the people to do their job and he thought they did a phenomenal job. They cleared airspace and landed aircraft. When you hear the comments on the frequency that they did, you have to assume nothing. They asked the crew if it was a trip, they said no, then huntress said they (Delta) had a bomb, so they treated it as one. They should follow up and find out where that came from. There was no other follow up on the Delta.

End of Interviews.



**United Airlines Flight 93 (UAL93)**

**Newark – San Francisco**

**All times indicated are Eastern Daylight Savings Time**

0809:18 Newark Airport Traffic Control Tower (EWR) issued taxi instructions to UAL93.

**0842:00 UAL93 began takeoff roll, runway 4 left, Newark New Jersey International Airport. All communications with EWR, with New York Departure Control, and with New York Air Route Traffic Control Center (ZNY) were routine and normal.**

0850:00 Washington Operations Center activated a Tactical Net at the request of Civil Aviation Security Intelligence (ACI).

0924:30 UAL93 established radio contact with Cleveland Air Route Traffic Control Center (ZOB), "Good morning Cleveland, United ninety-three, three-five-oh (thirty-five thousand feet), intermittent light chop." The controller was busy, the sector was responsible for sixteen aircraft. Of these, several aircraft were being issued new routes based on the events occurring on the east coast. The controller did not reply to this initial transmission.

0925:14 UAL93 again reported on ZOB frequency, "United ninety-three checking three-five-oh (thirty-five thousand feet)." The controller replied, "United ninety-three, Cleveland, roger." *Note: This was the third radar sector within ZOB to communicate with UAL93. The communications with the previous sectors were routine and normal.*

0928:19 A radio transmission of unintelligible sounds of possible screaming or a struggle from an unknown origin was heard over the ZOB radio.

0928:54 A second radio transmission, mostly unintelligible, again with sounds of possible screaming or a struggle and a statement, "get out of here, get out of here" from an unknown origin was heard over the ZOB radio. At about this same time, the ZOB controller observed that UAL93 had descended, altitude indicated thirty-four thousand, three hundred feet.

**0929:29 ZOB controller asked UAL93, "United ninety-three, verify three-five-zero (thirty-five thousand feet)." There was no reply. The ZOB controller made several attempts to contact UAL93 without receiving any acknowledgement.**

**0929:50 ZOB controller began moving other aircraft away from UAL93 due to the lack of acknowledgement of any radio transmissions. Several other aircraft on the frequency confirmed unusual sounds of an unknown origin. The altitude of UAL93 again indicated thirty-five thousand feet.**

0931:57 A third radio transmission, mostly unintelligible, may sound like an individual out of breath, more unintelligible words and what sounds like "bomb on board" from an unknown origin was heard over the ZOB radio.

0932:31 A fourth radio transmission stated "did you hear that transmission that reported a bomb on board?" from an unknown origin was heard over the ZOB radio.

0934:50 ZOB controller observed that UAL93 was climbing without an air traffic control authorization. The aircraft had started a turn to the southeast, also without air traffic control authorization.

0938:47 UAL93 altitude indicated forty-thousand seven hundred feet.

0939:12 A fifth radio transmission, mostly unintelligible, stated words that may sound like "captain, ...bomb on board, ...our demands, ...remain quiet"

0939:59 ZOB notified Great Lakes Regional Operations Center of the screams and statements from unknown origin, believed to be UAL93.

**0941:00 Secondary radar return (transponder) indicating aircraft speed, altitude, and flight information becomes intermittent and eventually failed on ZOB radar displays.**

0944:31 ZOB controller notified Pittsburgh Terminal Radar Approach Control (PIT) North Arrival controller of the unanticipated turn, the loss of secondary radar return and lack of radio communications with UAL93. The ZOB controller also stated that the projected flight path would result in UAL93 passing in close proximity if not directly overhead the Greater Pittsburgh International Airport.

0945:00 PIT controller notified the Operations Supervisor of the events surrounding UAL93. The PIT controller also manually initiated radar tracking of the primary radar target.

0951:00 After determination by the PIT facility manager to evacuate, the controllers have completed coordination with adjacent facilities and the PIT facility has been evacuated.

0956:56 A small contingency of controllers (volunteers) returned to the facility and coordination with adjacent facilities pertaining to return to operational status is completed. The track of UAL93 was no longer visible on the PIT radar displays.

1000:00 *This time is approximate and is based on personnel statements from ZOB. A ZOB controller's statement indicated that the pilot of a VFR aircraft reported sighting a United Airlines aircraft at approximately eight thousand feet in the vicinity of the Latrobe, Pennsylvania airport. The pilot also reported that the*

United Airlines aircraft's landing gear was down, the wings were rocking, and that the aircraft appeared to be in distress.

1004:00 *This time is approximate and is based on personnel statements from ZOB. A ZOB controller statement indicated that UAL93's primary radar target terminated in the vicinity of Somerset, Pennsylvania.*

1007:00 **In response to a request from a ZOB controller, N20VF, a Falcon Jet reported observing puffs of smoke in the vicinity of UAL93's last known position.**

1041:00 After receiving a telephone call from the Somerset, Pennsylvania police department stating that several "911" telephone calls had been received reporting an aircraft accident, a ZOB operations manager made official notification to Great Lakes Regional Operations Center. *Note: Although this is the officially documented notification time, FAA officials were aware of the accident as these events were reported as they occurred on a critical event teleconference established at the Federal Aviation Administration headquarters building.*

AAT-20  
September 17, 2001  
6:30 AM



## **Briefing Item**

### **American Airlines Flight 77**

#### **Summary:**

American Airlines Flight 77 (AAL77), a Boeing 757, departed Washington Dulles at 8:20am Eastern Standard Time, destined Los Angeles. The aircraft was provided normal departure service and preceded westbound, on course, as instructed. Indianapolis Air Route Traffic Control Center (ZID) lost radio contact at 8:47am and after an unauthorized course reversal, transponder data was lost at 8:56am. At 9:00am ZID began investigating loss of communication and radar data on AAL77 in the vicinity of York, Kentucky. Primary target was acquired by Dulles air traffic controllers, who advised the United States Secret Service and Washington National controllers of the unusual situation. Washington National controllers vectored a military C130, airborne from Andrews Air Force Base, to intercept the errant aircraft. The pilot of the C130 verified that subject aircraft was an American Boeing 757 and was flying towards the Washington, D. C. area. Primary radar data indicates the aircraft ceased its eastbound track, circled right and flew directly towards the Pentagon. Primary track data was lost in the area of the Pentagon at approximately 9:38am.

AAT-20

September 12, 2001

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Updated September 13, 2001 with receipt of additional facility data, last radio transmission from AAL 77 was received at 8:50 a.m.





0800:00 American Airlines Flight 11  
departs Boston to Los Angeles

0813:49 American Airlines Flight 11 is instructed  
to climb and maintain Flight Level 350,  
the instruction is repeated without  
response.

0820:48 Last transponder return at 28,900 feet,  
then primary only returns and the flight  
turns slightly more northwest.

0822:38 Primary radar returns cease.

0824:38 Unknown communication, "we have  
some planes, just stay quiet and you  
will be ok, we are returning to the  
airport" (AAT-20 interpretation).

0825:00 Boston ARTCC log entry: Based on  
cockpit communications we have  
declared a hijack is in progress. ROC,  
ATCSCC, and ZBW-1 notified.

0844:50 Newark ASR-9 radar picks up the  
flight passing the George Washington  
bridge.

0846:31 Last radar return, unknown altitude,  
350 knots ground speed.

0847 American Airlines Flight 11 crashes  
into the World Trade Center



1247:20 Aircraft is instructed to turn right 20 degrees.

1250:48 Aircraft is instructed to proceed direct  
Falmouth. Last response from aircraft. Level at 350.

1254:43 Aircraft starts unauthorized turn south.  
Level at 350

1256:19 Radar contact lost.



**American Flight 77**  
**Washington Dulles to Los Angeles**

Dulles ATCT	0820:00	Aircraft Departs.
ZDC	0825:49	Aircraft checks on and is instructed to climb to Flight Level (FL) 270.
	0840:05	Aircraft is instructed to contact Indy Center (wrong Frequency and sector).
ZID	0840:12	Aircraft checks on frequency level FL330. Controller instructs aircraft to change beacon code to 3743.
	<b>0850:51</b>	<b>Last radio communication with aircraft.</b>
	<b>0854:43</b>	<b>Aircraft begins unauthorized turn to the south at 35,000 feet.</b>
	0856:32	Controller calls Aircraft after he observes aircraft descend approximately 400-500'.
	<b>0856:00</b>	<b>Radar contact is lost. No Further contact with aircraft</b>
	0909:00	Reported to ROC (was inadvertently not logged) possible aircraft accident due to simultaneous loss of radio communications and radar. No indication of hijacking so no further action taken
Dulles ATCT	0925 (est.)	Controller observes primary target at high-speed transitioning west to east toward DC
	0933	Controller informs Operational Supervisor, whom in turns advises Washington National (DCA). Operational Supervisor advises the USSS via a "hotline" of the unknown aircraft.
	<b>0937</b>	<b>IAD ASR-9 shows last radar return</b>
DCA	<b>0934</b>	<b>Aircraft is observed completing a right 360 turn, just south of the Pentagon.</b>
	0936	National instructs a military C130 (Golfer06) that had just departed Andrews (Scheduled Flight) to intercept and identify it. GOLFER06 reports it was a B757, low level, and fast moving. USSS is advised.
	0938	AAL77 crashed into southwest side of Pentagon.



**American Flight 77**  
**Washington Dulles to Los Angeles**

Dulles ATCT	0820:00	Aircraft Departs.
ZDC	0825:49 0840:05	Aircraft checks on and is instructed to climb to Flight Level (FL) 270. Aircraft is instructed to contact Indy Center (wrong Frequency and sector).
ZID	0840:12	Aircraft checks on frequency level FL330. Controller instructs. aircraft to change beacon code to 3743.
	<b>0850:51</b>	<b>Last radio communication with aircraft.</b>
	<b>0854:43</b>	<b>Aircraft begins unauthorized turn to the south at 35,000 feet.</b>
	0856:32	Controller calls Aircraft after he observes aircraft descend approximately 400-500'.
	<b>0856:00</b>	<b>Radar contact is lost. No Further contact with aircraft</b>
	0909:00	Reported to ROC (was inadvertently not logged) possible aircraft accident due to simultaneous loss of radio communications and radar. No indication of hijacking so no further action taken
Dulles ATCT	0925 (est.)	Controller observes primary target at high-speed transitioning west to east toward DC
	0933	Controller informs Operational Supervisor, whom in turns advises Washington National (DCA). Operational Supervisor advises the USSS via a "hotline" of the unknown aircraft.
	<b>0937</b>	<b>IAD ASR-9 shows last radar return</b>
DCA	<b>0934</b>	<b>Aircraft is observed completing a right 360 turn, just south of the Pentagon.</b>
	0936	National instructs a military C130 (Golfer06) that had just departed Andrews (Scheduled Flight) to intercept and identify it. GOLFER06 reports it was a B757, low level, and fast moving. USSS is advised.
	0938	AAL77 crashed into southwest side of Pentagon.





AAL77, September 11, 2001

**Henderson Radar Position**

***D R A F T***

Agencies Making Transmissions

Indianapolis ARTCC Henderson Sector Radar Position

Washington ARTCC Moorefield Sector

American Airlines Inc. Flight 77

Indianapolis ARTCC Dacos Sector Radar Position

American Airlines Inc. Flight 2493

Abbreviations

HNN R

MFD

AAL77

DAC R

AAL2493

1234

1235

1236

1237

1238

1239

1239:26      HNN R      moorefield on the ninety stop american seventy seven at thirty three please i'll point him out

1239:30      MFD      thirty three t v

1239:52      MFD      so who wants to talk to american seventy seven bobcat or henderson

1239:55      HNN R      henderson

1239:57      MFD      henderson t v  
1240

1240:14      AAL77      center american seventy seven with you level three thirty

1240:16      HNN R      american seventy seven indy center roger squawk three seven four three

1240:18      AAL77      three seven four three american seventy seven

1241

1242

1243

1243:52      HNN R      american seventy seven climb and maintain flight level three five zero



1243:54	AAL77	thirty three for three five oh american seventy seven
1244		
1245		
1246		
1247		
1247:20	HNN R	american seventy seven turn ten degrees to the right vectors for traffic
1247:23	AAL77	ten right american seventy seven
1248		
1249		
1250		
1250:48	HNN R	american seventy seven cleared direct um falmouth
1250:51	AAL77	uh direct falmouth american seventy seven thank you
1251		
1252		
1253		
1254		
1255		
1256		
1256:32	HNN R	american seventy seven indy
1256:46	HNN R	american seventy seven indy
1256:53	HNN R	american seventy seven american indy
1257		
1257:12	HNN R	american seventy seven american indy radio check how do you read
1257:28	HNN R	american seventy seven american radio check how do you read
1257:35	HNN R	override beeping
1257:38	DAC R	this is uh---dacos



1257:41	HNN R	this is uh henderson american seventy seven i don't know what happened to him i'm trying to reach somebody look look like he turn took a turn to the south and now i'm uh i don't know what altitude he's at or what he's doing last (unintelligible) ah headin towards falmouth at thirty five
1257:50	DAC R	well just let me know
1257:52 1258	HNN R	okay i'll try to get a hold of him thanks
1258:16	HNN R	american seventy seven indy radio check how do you read
1258:41	HNN R	american ah seventy seven ah indy center how do you read
1258:51 1259	HNN R	american seventy seven indy radio check how do you read
1259:40	HNN R	override beeping
1259:43	DAC R	dacos
1259:44	HNN R	this is henderson still haven't got american seventy seven uh last he was at thirty five going to falmouth so i don't know where he is out there anywhere yet so i'm still trying to get a hold of him we contact the company
1259:55	DAC R	okay
1259:56	HNN R	okay
1259:57 1300	DAC R	thanks
1300:25	HNN R	american seventy seven indy
1300:29	AAL2493	center american ah twenty four ninety three



1300:31	HNN R	american twenty four ninety three go ahead
1300:33	AAL2493	yeah we uh sent a message to dispatch to have him come up on twenty twenty seven is that what you want em to do
1300:41	HNN R	yeah we had em on west side of our airspace and they went into coast and uh don't have a track on em and now he's not talking to me so we don't know exactly what happened to him we're trying to get a hold of him we also contacted your company so thanks for the help
1300:51	AAL2493	alright
1301		
1302		
1303		
1303:07	HNN R	american seventy seven indy
1304		
1305		
1306		
1307		
1308		
1309		





AAL77, September 11, 2001

**Henderson Radar Associate Position**

***D R A F T***

Agencies Making Transmissions

Washington ARTCC Moorefield Sector

American Airlines Inc. Flight 77

Indianapolis ARTCC Henderson Sector Radar Position

Indianapolis ARTCC Henderson Sector Radar Associate Position

American Airlines Inc. Dispatch

American Airlines Inc. Flight 2493

Indianapolis ARTCC Dacos Sector Radar Associate Position

Abbreviations

MFD

AAL77

HNN R

HNN RA

AAL

AAL2493

DAC RA

1234

1235

1236

1237

1238

1239

1239:52      MFD      so who wants to talk to american seventy seven bobcat or henderson

1240

1240:14      AAL77      center american seventy seven with you level thirty three

1240:16      HNN R      american seventy seven indy center roger squawk three seven four three

1240:18      AAL77      three seven four three american seventy seven

1241

1242

1243

1243:52      HNN R      american seventy seven climb and maintain flight level three five zero

1243:54      AAL77      thirty three for three five oh american seventy seven

1244

1245

1246

1247

1247:20      HNN R      american seventy seven turn ten degrees to the right vectors for traffic

1247:33      AAL77      ten right american seventy seven



1248		
1249		
1250		
1251		
1252		
1253		
1254		
1255		
1256		
1256:32	HNN R	american seventy seven indy
1256:46	HNN R	american seventy seven indy
1256:53	HNN R	american seventy seven american indy
1257		
1257:12	HNN R	american seventy seven american indy radio check how do you read
1257:28	HNN R	american seventy seven american radio check how do you read
1257:55	HNN RA	override line beeping
1258		
1258:08	HNN RA	outside line ringing
1258:14	AAL	american dispatch jim mcdonnel
1258:19	HNN RA	this is indianapolis center trying to get a hold of american seventy seven
1258:23	AAL	uh indy hang on one second please
1258:25	HNN RA	what
1258:26	AAL	hang on one second sir
1258:28	HNN RA	all right



1258:30	AAL	who ya trying to get a hold of
1258:31	HNN RA	american seventy seven
1258:32	AAL	okay
1258:33	HNN RA	on frequency one two zero point two seven
1258:35	AAL	one two zero
1258:36	HNN RA	point two seven we were talking to him and all of a sudden it just uh
1258:38	AAL	okay all right we'll get a hold of him for ya
1258:40	HNN RA	all right
1258:41	HNN R	american seventy seven indy center how do you read
1258:51	HNN R	american seventy seven indy radio check how do you read
1259		
1300		
1300:25	HNN R	american seventy seven indy
1300:29	AAL2493	center american twenty four ninety three
1300:31	HNN R	american twenty four ninety three go ahead
1300:33	AAL2493	yeah we uh sent a message to dispatch to have him come up on twenty twenty seven is that what you want em to do
1300:41	HNN R	yeah we had them on west side of our airspace and they went into coast and don't have a track on em and now he's not



talking to me so we don't know exactly what happened to him  
we're trying to get a hold of him we also contacted your  
company so thanks for the help

1300:51 1301	AAL2493	all right
1301:50	HNN RA	over ride line beeping
1302:00	HNN RA	outside line beeping
1302:07	AAL	american dispatch jim mcdonnel
1302:09	HNN RA	yeah this is indianapolis center we uh i don't know if i'm talking to the same guy but american seventy seven
1302:13	AAL	yeah i i i cell called him but i did not get a reply back from him
1302:17	HNN RA	we uh we lost track control of the guy he's in coast track but haven't we don't we don't even know where his target is and we can't get a hold of him hmm you guys tried him and no response
1302:26	AAL	no response (background noise)
1302:28	HNN RA	yeah we have no radar contact and uh no communication with him so if you guys could try again
1302:35	AAL	we're doing it
1302:37	HNN RA	all right thanks a lot
1302:38 1303	AAL	we're doing it thank you
1303:07 1304	HNN R	american seventy seven indy





1305		
1306		
1306:20	HNN RA	override line beeping
1306:21	DAC RA	falmouth dacos
1306:22	HNN RA	this is henderson american seventy seven do you guys have radar on him is he over falmouth or
1306:25	DAC RA	no we just moved th track there we never you know
1306:27	HNN RA	okay all right you just have the track out there
1306:29	DAC RA	you guys never been able to raise him at all
1306:31	HNN RA	no we called company they can't even get a hold of him so there's no no radar uh no radio
1306:36	DAC RA	and his last clearance as far as you know is on course to ] falmouth and then jay one thirty four right well we're just gonna treat him like non radar and we've already tole the next sector they're gonna have to sterilize for until we find out
1306:49	HNN RA	okay thanks
1306:50	DAC RA	i d
1307		
1308		
1308:43	HNN RA	override line beeping
1308:54	HNN RA	line ringing
1309:00	AAL	american dispatch jim mcdonnel
1309:02	HNN RA	indianapolis center did you get a hold of american seventy seven by chance



1309:05	AAL	no sir but we have an unconfirmed report that the second airplane hit the world trade center and exploded
1309:10	HNN RA	say again
1309:11	AAL	you know we lost american eleven to a hijackin american was a boston to los angelas flight
1309:17	HNN RA	it was all right i can't really i can't hear what you're sayin there you said american eleven
1309:23	AAL	yes we were hijacked
1309:25	HNN RA	and it
1309:27	AAL	and it was a boston l a flight and seventy seven is a dulles l a flight and uh we've had an unconfirmed report a second airplance just flew into the world trade center
1309:42 1310	HNN RA	thank you very much good bye
1310:30	HNN RA	calls DAC RA line beeps
1310:32	DAC RA	dacos
1310:34  1311	HNN RA	all right this is henderson there was an american eleven departed off of uh new york goin to l a got hijacked american seventy seven departed off of dulles is going to l a dispatch doesn't know where he's at and confirmed that two airplanes have been uh they crashed into uh the world trade center in new york so as far as american seventy seven we don't know where he is but they say uh american eleven was hijacked off of a new york airport going to l a x and uh
1311:07	DAC RA	but we don't have a track on him



1311:09	HNN RA	affirmative
1311:10	DAC RA	you mean like they just took off without a clearance
1311:13	HNN RA	no you mean american eleven
1311:14	DAC RA	yep
1311:15	HNN RA	he he's depart well i guess he did because he was goin to l a
1311:17	DAC RA	but nobody ever tracked american eleven is what i'm asking
1311:20	HNN RA	i don't know that i don't
1311:22	DAC RA	oh okay
1311:23	HNN RA	know just where he left from or uh
1311:25	DAC RA	there's no flight plan in the machine right now and
1311:28	HNN RA	yeah i just looked at that too
1311:29	DAC RA	i'm
1311:30	HNN RA	as far as what we know that's that's all we know i talked to dispatch and that's what they relayed and they confirmed it here that i guess two airplanes about crashed into the the trade center
1311:37	DAC RA	huh
1311:39	HNN RA	all right



1311:40	DAC RA	oh
1312		
1313		
1313:54	HNN RA	override line beeping
1314		
1314:04	HNN RA	line ringing
1314:37	AAL	american dispatch jim mcdonnel
1314:39	HNN RA	indy center here
1314:40	AAL	yes sir
1314:42	HNN RA	american eleven you guys said he departed off of uh new york
1314:45	AAL	boston
1314:46	HNN RA	boston he was going to l a and it was a hijacked airplane
1314:49	AAL	yes
1314:50	HNN RA	and you have you heard anything from american seventy seven
1314:52	AAL	no
1314:52	HNN RA	okay and if
1314:53	AAL	i talked to a winder in the center up there i gave em them the information i got
1314:55	HNN RA	okay thanks a lot
1314:56	AAL	okay





1314:57      HNN RA      all right  
1315  
1316  
1317  
1318  
1319  
1320



Dulles International Airport

Last radar return at 9:37:35am ET

P56

Washington National Airport

9:27:53am ET

9:31:21am ET

Primary radar track of AAL77, no altitude information, average ground speed 400 knots

AAL77 makes a right 360-degree turn

9:36am ET

9:33am ET

9:31:21am ET

Flight passes through the Dulles Airport final approach course

Primary radar track, no altitude information, average ground speed – 400 knots

Aircraft begins a circling turns at 9:34:26am ET

Last radar return of AAL77 at 9:37:35am ET



Subject: **INFORMATION:** Partial Transcription;  
Aircraft Accident AAL77;  
Pentagon Building, Washington, D.C.;  
September 11, 2001

From: Washington ARTCC

Reply to  
Attn. of:

This transcription covers the Washington ARTCC R05 position for the time period from September 11, 2001, 1220 UTC to September 11, 2001, 1235 UTC.

<u>Agencies Making Transmissions</u>	<u>Abbreviations</u>
American Airlines Flight 77	AAL77
Washington ARTCC Linden Radar	R05

I hereby certify that the following is a true transcription of the recorded conversations pertaining to the subject aircraft accident involving American 77:

John J. Gregory  
Air Traffic Evaluator  
Washington ARTCC

1220  
1221  
1222  
1223  
1224  
1225

1225:49 AAL77 center american seventy seven with you passing  
one three decimal zero for one seven thousand



Zxx-ARTCC-nnn

AAL77

Page 2 of 2

1225:57 R05 american seventy seven washington center roger  
climb and maintain flight level two seven zero

1226:00 AAL77 two seven zero american seventy seven

1227

1228

1229

1230

1230:38 R05 american seventy seven contact washington center  
one three three point two seven

1230:42 AAL77 ah thrity three twenty seven american seventy  
seven

1231

1232

1233

1234

1235

End of Transcript





File:

WP: AAL77 partial transcription doc

ZDC-505:jgregory:jjg: (demo) : 09/12/2001



## **Briefing Item**

### **American Airlines Flight 77**

#### **Summary:**

American Airlines Flight 77 (AAL77), a Boeing 757, departed Washington Dulles at 8:20am Eastern Standard Time, destined Los Angeles. The aircraft was provided normal departure service and preceded westbound, on course, as instructed. Radio contact was lost by Indianapolis Air Route Traffic Control Center at 8:47am and after an unauthorized course reversal, transponder data was lost at 8:56am. Primary data tracking was followed by Dulles air traffic controllers, who advised the United States Secret Service and Washington National controllers of the situation. Washington National controllers vectored a military C130, airborne from Andrews Air Force Base, to intercept the errant aircraft. The pilot of the C130 verified that subject aircraft was an American Boeing 757 and was flying towards the Washington, D. C. area. Primary radar data indicates the aircraft ceased its eastbound track, circled right and flew directly towards the Pentagon. Primary track data was lost in the area of the Pentagon at approximately 9:38am.

AAT-20

September 12, 2001



0820:00 AAL77 departs Washington Dulles to Los Angeles.

0934:00 Aircraft is observed completing a right 360 degree turn, just south of the Pentagon.

0850:51 Last radio communication with aircraft.

0938:00 AAL77 crashed into southwest side of Pentagon.

0854:43 Aircraft begins unauthorized turn to the south at 35,000 feet.

0856:00 Radar contact is lost. No further contact with aircraft.

0937:00 IAD ASR-9 shows last radar return.



**American Flight 77**  
**Washington Dulles to Los Angeles**

<b>Dulles ATCT</b>	0820	Aircraft Departs.
	0824	Aircraft is instructed to contact Washington Center (ZDC).
<b>ZDC</b>	0825:49	Aircraft checks on and is instructed to climb to Flight Level (FL) 270.
	0831:23	Aircraft is instructed to climb to FL290.
	0834:18	Aircraft is instructed to turn 20 degrees right.
	0837:33	Aircraft is issued direct Charleston and climb and maintain FL390
	0837:39	Aircraft read-backs direct Henderson and request FL350 for a final .
	0838:03	Aircraft is instructed to maintain FL350.
	0839:30	Aircraft is instructed to maintain FL330.
	0840:05	Aircraft is instructed to contact Indy Center (wrong Frequency and sector).
<b>Indy Center</b>	0840:12	Aircraft checks on "correct frequency" level FL330. Controller instructs. aircraft to change beacon code to 3743.
	0843:52	Aircraft is instructed to climb and maintain FL350.
	0847:20	Aircraft is instructed to turn 20 degrees right for traffic.
	0847:23	Aircraft acknowledges with "10 right AAL77".
	0850:48	Aircraft is instructed to proceed direct Falmouth.
	0850:51	Aircraft acknowledges "AAL77 Thank you".
	0856:32	Controller calls Aircraft after he observes aircraft descend approximately 400-500'.
	0856:	Radar contact is lost.

**No Further contact with aircraft**

<b>Dulles ATCT</b>	0925 (estimate)	Controller observes primary target at high-speed transitioning west to east toward DC.
	0933	Controller informs Operational Supervisor, whom in turns advises Washington National (DCA). Operational Supervisor advises the USSS via a "hotline" of the unknown aircraft.
<b>DCA</b>		Aircraft is observed completing a right 360 turn, just south of the Pentagon.
	0936	National instructs a military C130 (Golfer06) that had just departed Andrews (Scheduled Flight) to intercept and identify it. GOLFER06 reports it was a B757, low level, and fast moving. USSS is advised.
	938	AAL77 crashed into southwest side of Pentagon.





1250:48 Aircraft is cleared direct Falmouth Last communication with aircraft.

1243:52 Aircraft instructed to climb to FL350

1256:32 Aircraft is observed descending 400-500'. Aircraft will not respond.

1256 Radar contact is lost by Indy Center

Approximately 1325 Dulles TRACON observe high speed unknown target heading toward DC.

1333 Dulles advise USSS and DCA of unknown target.

1336 DCA request military C130, Gofer06, a routine departure off of Andrews AFB to intercept.

1337 Gofer06 reports a B757 making a 360 degree turn toward DC

1338 Aircraft impacts Pentagon



## **ALERT BULLETIN**

All reports are based on preliminary information and are being investigated by the appropriate authorities. Public availability to be determined under 5 U.S.C 552.

**Distribution of this document is limited. Duplication, reproduction, or further distribution shall not be made unless approved by AAT-1 or AAT-20.**

**SUBJECT:** Aircraft Accident, AAL77/B757 Dulles, Washington to Los Angeles, CA

**CREW/PASSENGER INFO:** 58 passengers 6 crew, all fatal.

**DATE/TIME:** 9/11/01 at 9:38am ET

**LOCATION:** Pentagon, Washington, DC

**WEATHER:** VFR

**SUMMARY:** Aircraft departed Dulles normally at 8:20am ET. The aircraft was provided normal service and there were no unusual communications with air traffic control. The aircraft made an unauthorized course reversal, heading back towards the Washington DC area. Radar data indicates a loss of transponder radar replies and a primary radar return, believed to be AAL77, was tracked eastbound at a high rate of speed. Radio communication with AAL77 was lost by the Indianapolis Air Route Traffic Control Center at 8:47am ET. Dulles air traffic control tracked the target and advised the US Secret Service and Washington National controllers. Washington National controllers vectored a military C130, already airborne from Andrews Air Force Base, to intercept the errant aircraft. The military C130 pilot verified that the subject aircraft was an American Boeing 757 and was flying towards the Washington DC area. According to radar data the aircraft circled to the right and flew directly towards the Pentagon. Radar contact was lost in the area of the Pentagon at approximately 9:38am ET.

**FOLLOW-UP ACTION:**

Recorded radar and audio tapes are still being reviewed.

AAT-20

October 27, 2003, 7:18am ET, supersedes all previous editions

EZ/1018 AA

Distribution: AAT-1/2/3/20/100/200; ATP-1; AAI-100; Axx-500; File



# DRAFT

R05 (Linden)

R03 (Morefield)

12:25:00

12:25:49 AAL77 center american seventy seven with you passing one three decimal zero for one seven thousand

12:25:57 R05 american seventy seven washington center roger climb and maintain flight level two seven zero

12:26:00 AAL77 two seven zero american seventy seven

12:27:00

12:28:00

12:29:00

12:30:00

12:30:38 R05 american seventy seven contact washington center one three three point two seven

12:30:42 AAL77 ah thirty three twenty seven american seventy seven

12:31:00

12:31:08 AAL77 (unintelligible) american seventy seven passing two five decimal one for two seven oh

12:31:23 R03 american seventy seven ah climb climb and maintain flight level two niner zero sir



# DRAFT

12:31:30	AAL77	two niner zero american seventy seven
12:32:00		
12:33:00		
12:34:00		
12:34:17	R03	american seventy seven turn twenty degrees right vector for your climb
12:34:19	AAL77	turn twenty right american seventy seven
12:35:00		
12:36:00		
12:37:00		
12:37:33	R03	american seventy seven recleared direct charleston climb and maintain cor correction recleared direct henderson sir climb and maintain flight level three niner zero
12:37:39	AAL77	direct henderson out of two nine for three nine oh requesting three five zero for a final american seventy seven
12:37:57	AAL77	center american seventy seven you copy request for three five zero as a final
12:57:59	R03	american seventy seven roger maintain flight level three five zero show that as your final
12:38:03	AAL77	three five zero for a final american seventy seven thank you sir





# DRAFT

12:39:30 R03 american seventy seven amend your altitude maintain  
flight level three three zero for traffic

12:39:33 AAL77 american seventy seven stop at three three zero

12:40:00

12:40:05 R03 american seventy seven contact indy center one two  
zero point two seven

12:40:08 AAL77 twenty five seven american seventy seven thanks sir  
good day

End of Transcript



AAL77, September 11, 2001

**Henderson Radar Associate Position**

***D R A F T***

Agencies Making Transmissions

Washington ARTCC Moorefield Sector  
American Airlines Inc. Flight 77  
Indianapolis ARTCC Henderson Sector Radar Position  
Indianapolis ARTCC Henderson Sector Radar Associate Position  
American Airlines Inc. Dispatch  
American Airlines Inc. Flight 2493  
Indianapolis ARTCC Dacos Sector Radar Associate Position

Abbreviations

MFD  
AAL77  
HNN R  
HNN RA  
AAL  
AAL2493  
DAC RA

1234

1235

1236

1237

1238

1239

1239:52      MFD      so who wants to talk to american seventy seven bobcat or henderson

1240

1240:14      AAL77      center american seventy seven with you level thirty three

1240:16      HNN R      american seventy seven indy center roger squawk three seven four three

1240:18      AAL77      three seven four three american seventy seven

1241

1242

1243

1243:52      HNN R      american seventy seven climb and maintain flight level three five zero

1243:54      AAL77      thirty three for three five oh american seventy seven

1244

1245

1246

1247

1247:20      HNN R      american seventy seven turn ten degrees to the right vectors for traffic

1247:33      AAL77      ten right american seventy seven



1248		
1249		
1250		
1251		
1252		
1253		
1254		
1255		
1256		
1256:32	HNN R	american seventy seven indy
1256:46	HNN R	american seventy seven indy
1256:53	HNN R	american seventy seven american indy
1257		
1257:12	HNN R	american seventy seven american indy radio check how do you read
1257:28	HNN R	american seventy seven american radio check how do you read
1257:55	HNN RA	override line beeping
1258		
1258:08	HNN RA	outside line ringing
1258:14	AAL	american dispatch jim mcdonnel
1258:19	HNN RA	this is indianapolis center trying to get a hold of american seventy seven
1258:23	AAL	uh indy hang on one second please
1258:25	HNN RA	what
1258:26	AAL	hang on one second sir
1258:28	HNN RA	all right



1258:30	AAL	who ya trying to get a hold of
1258:31	HNN RA	american seventy seven
1258:32	AAL	okay
1258:33	HNN RA	on frequency one two zero point two seven
1258:35	AAL	one two zero
1258:36	HNN RA	point two seven we were talking to him and all of a sudden it just uh
1258:38	AAL	okay all right we'll get a hold of him for ya
1258:40	HNN RA	all right
1258:41	HNN R	american seventy seven indy center how do you read
1258:51	HNN R	american seventy seven indy radio check how do you read
1259		
1300		
1300:25	HNN R	american seventy seven indy
1300:29	AAL2493	center american twenty four ninety three
1300:31	HNN R	american twenty four ninety three go ahead
1300:33	AAL2493	yeah we uh sent a message to dispatch to have him come up on twenty twenty seven is that what you want em to do
1300:41	HNN R	yeah we had them on west side of our airspace and they went into coast and don't have a track on em and now he's not





talking to me so we don't know exactly what happened to him  
we're trying to get a hold of him we also contacted you  
company so thanks for the help

1300:51 1301	AAL2493	all right
1301:50	HNN RA	over ride line beeping
1302:00	HNN RA	outside line beeping
1302:07	AAL	american dispatch jim mcdonnel
1302:09	HNN RA	yeah this is indianapolis center we uh i don't know if i'm talking to the same guy but american seventy seven
1302:13	AAL	yeah i i i cell called him but i did not get a reply back from him
1302:17	HNN RA	we uh we lost track control of the guy he's in coast track but haven't we don't we don't even know where his target is and we can't get a hold of him hmm you guys tried him and no response
1302:26	AAL	no response (background noise)
1302:28	HNN RA	yeah we have no radar contact and uh no communication with him so if you guys could try again
1302:35	AAL	we're doing it
1302:37	HNN RA	all right thanks a lot
1302:38 1303	AAL	we're doing it thank you
1303:07 1304	HNN R	american seventy seven indy



1305		
1306		
1306:20	HNN RA	override line beeping
1306:21	DAC RA	falmouth dacos
1306:22	HNN RA	this is henderson american seventy seven do you guys have radar on him is he over falmouth or
1306:25	DAC RA	no we just moved th track there we never you know
1306:27	HNN RA	okay all right you just have the track out there
1306:29	DAC RA	you guys never been able to raise him at all
1306:31	HNN RA	no we called company they can't even get a hold of him so there's no no radar uh no radio
1306:36	DAC RA	and his last clearance as far as you know is on course to ] falmouth and then jay one thirty four right well we're just gonna treat him like non radar and we've already tole the next sector they're gonna have to sterilize for until we find out
1306:49	HNN RA	okay thanks
1306:50	DAC RA	i d
1307		
1308		
1308:43	HNN RA	override line beeping
1308:54	HNN RA	line ringing
1309:00	AAL	american dispatch jim mcdonnel
1309:02	HNN RA	indianapolis center did you get a hold of american seventy seven by chance



1309:05	AAL	no sir but we have an unconfirmed report that the second airplane hit the world trade center and exploded
1309:10	HNN RA	say again
1309:11	AAL	you know we lost american eleven to a hijackin american was a boston to los angelas flight
1309:17	HNN RA	it was all right i can't really i can't hear what you're sayin there you said american eleven
1309:23	AAL	yes we were hijacked
1309:25	HNN RA	and it
1309:27	AAL	and it was a boston l a flight and seventy seven is a dulles l a flight and uh we've had an unconfirmed report a second airplane just flew into the world trade center
1309:42 1310	HNN RA	thank you very much good bye
1310:30	HNN RA	calls DAC RA line beeps
1310:32	DAC RA	dacos
1310:34  1311	HNN RA	all right this is henderson there was an american eleven departed off of uh new york goin to l a got hijacked american seventy seven departed off of dulles is going to l a dispatch doesn't know where he's at and confirmed that two airplanes have been uh they crashed into uh the world trade center in new york so as far as american seventy seven we don't know where he is but they say uh american eleven was hijacked off of a new york airport going to l a x and uh
1311:07	DAC RA	but we don't have a track on him



1311:09	HNN RA	affirmative
1311:10	DAC RA	you mean like they just took off without a clearance
1311:13	HNN RA	no you mean american eleven
1311:14	DAC RA	yep
1311:15	HNN RA	he he's depart well i guess he did because he was goin to l a
1311:17	DAC RA	but nobody ever tracked american eleven is what i'm asking
1311:20	HNN RA	i don't know that i don't
1311:22	DAC RA	oh okay
1311:23	HNN RA	know just where he left from or uh
1311:25	DAC RA	there's no flight plan in the machine right now and
1311:28	HNN RA	yeah i just looked at that too
1311:29	DAC RA	i'm
1311:30	HNN RA	as far as what we know that's that's all we know i talked to dispatch and that's what they relayed and they confirmed it here that i guess two airplanes about crashed into the the trade center
1311:37	DAC RA	huh
1311:39	HNN RA	all right





1311:40	DAC RA	oh
1312		
1313		
1313:54	HNN RA	override line beeping
1314		
1314:04	HNN RA	line ringing
1314:37	AAL	american dispatch jim mcdonnel
1314:39	HNN RA	indy center here
1314:40	AAL	yes sir
1314:42	HNN RA	american eleven you guys said he departed off of uh new york
1314:45	AAL	boston
1314:46	HNN RA	boston he was going to l a and it was a hijacked airplane
1314:49	AAL	yes
1314:50	HNN RA	and you have you heard anything from american seventy seven
1314:52	AAL	no
1314:52	HNN RA	okay and if
1314:53	AAL	i talked to a winder in the center up there i gave em them the information i got
1314:55	HNN RA	okay thanks a lot
1314:56	AAL	okay



1314:57 HNN RA all right  
1315  
1316  
1317  
1318  
1319  
1320



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

**ACTION:** Complete in accordance with FAA Order 8020.11A, Paragraph 73, Personnel Statements.

**BACKGROUND:** Much of the information concerning the circumstances surrounding this accident/incident can be retrieved via some type of recorded data source. However, some of the facts concerning what you saw and what you did may not have been completely captured. The purpose of this statement is to provide any facts within your personal knowledge that you believe will provide a more complete understanding of the circumstances surrounding this accident/incident. Therefore, speculations, hearsay, opinions, conclusions, and /or other extraneous data are not to be included in this statement. Additionally, this statement may be released to the public through FOIA or litigation activities including pretrial discovery, depositions and actual court testimony.

**INSTRUCTIONS:** This statement is to be printed and signed by you, and your signature below certifies the accuracy of this statement. It will neither be edited nor typed and, once signed, will constitute your original statement. Include the equipment configuration, if known, or indicate that equipment configuration is unknown.

This statement concerns the \_\_\_\_\_ involving \_\_\_\_\_ at \_\_\_\_\_, on \_\_\_\_\_, UTC. My name is TODD LEWIS  
FA\*. I am employed as an (ATCS) (SATCS) by the FAA at the DULLES ATCT,  
\_\_\_\_\_ I was working the SOUTH DEPARTURE position from \_\_\_\_\_ UTC to \_\_\_\_\_ UTC.

Text of statement:

I WAS WORKING SOUTH DEPARTURE RADAR POSITION WHEN SOMEONE MENTIONED A PRIMARY TARGET SOUTH OF AML HEADING EAST AT A HIGH RATE OF SPEED. THIS OR ANOTHER CONTROLLER SAID WE NEED TO CALL NATIONAL APPROACH AND WARN THEM. THIS WAS DONE IMMEDIATELY OVER THE HANDOFF LINE. THE TARGET WENT JUST SOUTH OF THE WHITE HOUSE THEN TURNED SOUTHEAST AND DISAPPEARED.

I certify, to the best of my knowledge and recollection, the above statement is correct.

Todd Lewis  
Signature

9-11-01  
Date

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

**ACTION:** Complete in accordance with FAA Order 8020.11A, Paragraph 73, Personnel Statements.

**BACKGROUND:** Much of the information concerning the circumstances surrounding this accident/incident can be retrieved via some type of recorded data source. However, some of the facts concerning what you saw and what you did may not have been completely captured. The purpose of this statement is to provide any facts within your personal knowledge that you believe will provide a more complete understanding of the circumstances surrounding this accident/incident. Therefore, speculations, hearsay, opinions, conclusions, and/or other extraneous data are not to be included in this statement. Additionally, this statement may be released to the public through FOIA or litigation activities including pretrial discovery, depositions and actual court testimony.

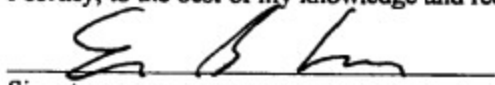
**INSTRUCTIONS:** This statement is to be printed and signed by you, and your signature below certifies the accuracy of this statement. It will neither be edited nor typed and, once signed, will constitute your original statement. Include the equipment configuration, if known, or indicate that equipment configuration is unknown.

This statement concerns the incident involving AAL77 at IAD, on 7/11/01, 1219 UTC. My name is ERIC LEWIS (R4). I am employed as an (ATCS) (SATCS) by the FAA at the Washington Dulles ATCT, Chantilly, Virginia. I was working the ND position from 1108 UTC to 1224 UTC.

Text of statement:

I, Eric Lewis, was training Rudy Reid (RH) on ND/50 combined. At approximately 1219Z, AAL77 checked in ~~was~~ climbing out of 1,000 for 3,000. Rudy's first transmission to AAL77 was to climb to 5,000. He next climbed AAL77 to 11,000. Rudy then turned AAL77 direct LON VOR before switching the aircraft to the High Departure Controller.

I certify, to the best of my knowledge and recollection, the above statement is correct.

  
Signature

7/12/01  
Date

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)





I also would like to note that I have a vague recollection of observing a 7500 code west of DOCCS intersection (outside of our airspace). At an unknown time between 1108z - 1224z, I observed the code for a few seconds then it went away or disappeared.

Er. B. Lm

2/12/01



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

**ACTION:** Complete in accordance with FAA Order 8020.11A, Paragraph 73, Personnel Statements.

**BACKGROUND:** Much of the information concerning the circumstances surrounding this accident/incident can be retrieved via some type of recorded data source. However, some of the facts concerning what you saw and what you did may not have been completely captured. The purpose of this statement is to provide any facts within your personal knowledge that you believe will provide a more complete understanding of the circumstances surrounding this accident/incident. Therefore, speculations, hearsay, opinions, conclusions, and /or other extraneous data are not to be included in this statement. Additionally, this statement may be released to the public through FOIA or litigation activities including pretrial discovery, depositions and actual court testimony.

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This statement concerns the INCIDENT involving AAL77 at IAD on 9-11-01, 1325 UTC. My name is William T. Howell  
( )\*. I am employed as an (ATCS) ~~(ATCS)~~ by the FAA at the Dulles ATCT,  
Chantilly, VA. I was working the West/South position from 1325 UTC to 1345 UTC. ARRIVAL

Text of statement: I WAS WORKING THE WEST ARRIVAL AND SOUTH ARRIVAL POSITIONS COMBINED. DANIELLE O'BRIEN WAS WORKING THE FINAL POSITION NEXT TO ME. SHE LEANED IN MY DIRECTION AND ASKED IF I HAD A PRIMARY TARGET ON MY SCOPE JUST SOUTH OF DULLES. I SCANNED THE SCOPE AND OBSERVED THE SAME TARGET. I TOLD HER I SEE IT, AND IT APPEARS HEADED EASTBOUND. AT THAT POINT I YELLED FOR THE SUPERVISOR AND TOLD HIM WE HAD A TARGET HEADED EASTBOUND TOWARDS THE WHITEHOUSE. I CONTINUED TO WATCH THE TARGET MOVE EASTBOUND AND THEN TURN SOUTHBOUND. THE TARGET WENT A FEW MILES SOUTH OF DCA AND THEN MADE A SHARP TURN NORTHBOUND, BACK IN THE DIRECTION OF DCA. I WAS CONTINUING TO GIVE POSITION REPORTS TO THE SUPERVISOR. SHORTLY AFTER HE TURNED NORTHBOUND I NO LONGER OBSERVED THE TARGET ON RADAR.

I certify, to the best of my knowledge and recollection, the above statement is correct.

William T. Howell  
Signature

9-12-01  
Date

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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This statement concerns the INCIDENT involving AAL 77 at IAD, on 9/11/01, 1216 UTC. My name is BLAINE SWANK (\*). I am employed as an (ATCS) (SATCS) by the FAA at the DULLES ATCT, CHANTILLY, VIRGINIA. I was working the LOCAL CONTROL position from 1201 UTC to 1314 UTC.

Text of statement:

I WAS WORKING LOCAL CONTROL WEST. I INSTRUCTED AAL 77 TO TAKE INTO POSITION AND HOLD ON RUNWAY 30 FOR WAKE TURBULENCE AND ARRIVING TRAFFIC RUNWAY 15 LEFT. AAL 77 DID NOT RESPOND. HE LATER CHECKED ON THE FREQUENCY AND I PUT HIM INTO POSITION AND HOLD. I THEN CHANGED HIS DEPARTURE FREQUENCY BEFORE CLEARING HIM FOR TAKE OFF. I TURN AAL 77 TO A 270 HEADING AND SWITCHED HIM TO DEPARTURE.

I certify, to the best of my knowledge and recollection, the above statement is correct.

Blaine Swank  
Signature

9/12/01  
Date

\*OPERATING INITIALS.  
IAD Hub Form 8020-3 (6/01)



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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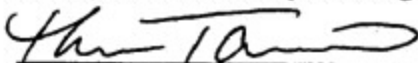
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This statement concerns the Incident involving AAL 77 at IAD on 9/12/01, 1212 UTC. My name is THOMAS TAVINO (TT)\*. I am employed as an (ATCS) (SATCS) by the FAA at the IAD ATCT, Chantilly, Virginia. I was working the GSCW position from 1200 UTC to 1235 UTC.

Text of statement:

AAL 77 contacted me for taxi instructions for departure. I taxied AAL 77 to Runway 30 and he acknowledged the instructions. I observed the aircraft taxi to Runway 30.

I certify, to the best of my knowledge and recollection, the above statement is correct.



Signature

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)

9-12-01

Date





FM- 9/12/01

The following is a preliminary statement from FM regarding the observation of a primary target just prior the attack on the Pentagon being reported. It was dictated to TW over the telephone at approximately 9 AM on 9/12/01. It should be noted that due to this being dictated and copied inaccuracies may be present.

FM was alerted to a fast moving primary radar target by QZ, who was working the west arrival radar position. FM first observed the target 2 miles east of AMR. The target proceeded to a point 1 mile west of Crystal City and turned southwest to a point 5 miles northeast of DAA. It then made a right turn, 2 miles north of DAA, and proceeded northbound. 3 miles later the target turned northeast bound and shortly thereafter radar contact was lost.

The elapsed time of the observation was 1 1/2 to 2 minutes. During this time FM kept JH and Bob Brickly updated on the position of the aircraft.

James E. Walsh



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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This statement concerns the INCIDENT involving AAL 77 at IAD on 9/11/01, 1223 UTC. My name is DANIELLE LOUISE O'BRIEN  
(DO)\*. I am employed as an (ATCS) (~~SATCS~~) by the FAA at the DULLES ATCT,  
VIENNA, VIRGINIA. I was working the NORTH/SOUTH HIGH position from 1152 UTC to 1228 UTC.

Text of statement:

AFTER ACKNOWLEDGING CONTACT WITH AAL 77, I INSTRUCTED HIM TO CLIMB AND MAINTAIN 17,000. HE ACKNOWLEDGED THE CLEARANCE. AFTER COMPLETING A RADAR (AUTOMATED) HANDOFF TO THE LINDEN SECTOR AT WASHINGTON ARTCC, I INSTRUCTED AAL 77 TO CONTACT WASHINGTON CENTER. HE ACKNOWLEDGED. NO FURTHER COMMUNICATIONS WERE ACCOMPLISHED.

I certify, to the best of my knowledge and recollection, the above statement is correct.

Danielle L. O'Brien  
Signature

9/12/01  
Date

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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This statement concerns the INCIDENT involving AAL 77 at IAD on 9/11/01 1330 UTC. My name is DANIELLE LOUISE O'BRIEN  
(Q2)\*. I am employed as an (ATCS) (SATCS) by the FAA at the DULLES ATCT,  
CHANTILLY, VIRGINIA. I was working the FINAL WEST/EAST position from 1301 UTC to  
1350 UTC.

Text of statement:

I WAS WORKING THE FINAL WEST/EAST POSITION. I OBSERVED A PRIMARY TARGET APPROXIMATELY TEN MILES NORTHWEST OF THE MANASSAS AIRPORT, PROCEEDING SOUTHEASTBOUND AT A HIGH RATE OF SPEED. I ADJUSTED THE FILTER LIMITS ON THE SCOPE SO AS TO DISPLAY LIMITED DATA BLOCKS FOR ALTITUDES HIGHER THAN STANDARD TO THE FINAL CONTROL POSITION. NO TRANSPONDER INFORMATION WAS DISPLAYED FOR THE TARGET.

I MOVED TO THE WEST ARRIVAL POSITION LOCATED IMMEDIATELY TO MY LEFT. I ASKED THE WEST ARRIVAL CONTROLLER IF HE OBSERVED A PRIMARY TARGET SOUTH OF DULLES NOW MOVING EASTBOUND AT A HIGH RATE OF SPEED. HE AGREED WITH MY OBSERVATION. I WAS SUSPICIOUS BECAUSE I HAD VIEWED THE MEDIA VIDEO OF THE INCIDENTS IN NEW YORK CITY, AND I WAS AWARE AN AIRCRAFT

I certify, to the best of my knowledge and recollection, the above statement is correct.

Signature

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)

Date

9/12/01



WAS UNACCOUNTED FOR WITH WASHINGTON ARTCC.

I TRIED TO GAIN THE ATTENTION OF THE TRACON OPERATIONS SUPERVISOR(OS) BY YELLING FOR HIM. I AGAIN ADJUSTED MY FILTER LIMITS. I TRIED TO CONTACT WASHINGTON NATIONAL'S RADAR CONTROLLERS VIA THE 62 LINE. I ADVISED THE DULLES TRACON OS OF THE TARGET'S HEADING AND RATE OF SPEED. I AGAIN ADJUSTED THE FILTER LIMITS. I PROVIDED UPDATES TO THE OS AS I OBSERVED THE TARGET TRACKING TOWARD THE WHITE HOUSE. I HEARD THE OS RELAYING THE INFORMATION VIA LANDLINE (ICSS) AND THEN VIA THE DEDICATED PHONE TO THE WHITE HOUSE SWITCHBOARD.

I HEARD WASHINGTON NATIONAL STATE OVER THE LANDLINE TO HOLD THEIR TRAFFIC BECAUSE THE PENTAGON HAD BEEN HIT.

I DO NOT RECALL THE EQUIPMENT CONFIGURATION AT THE TIME OF THE INCIDENT.

---





**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

**ACTION:** Complete in accordance with FAA Order 8020.11A, Paragraph 73, Personnel Statements.

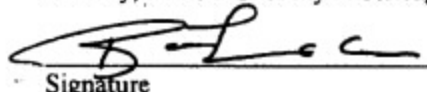
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This statement concerns the INCIDENT involving THE PRIMARY TARGET at IAD AIRSPACE, on 9/11/01 1330 UTC. My name is ROSANNE MCCONNELL (AO)\*. I am employed as an (ATCS) (SATCS) by the FAA at the DULLES ATCT, CLANVILLE, VA. I was working the NORTH ARRIVAL position from 1330 UTC to 1404 UTC.

Text of statement: WHILE WORKING RADAR AT THE NORTH ARRIVAL POSITION I WAS ALERTED BY THE FINAL CONTROLLER THAT THERE WAS A PRIMARY TARGET IN DULLES AIRSPACE HEADING FOR THE WHITE HOUSE. I LOOKED FOR THE TARGET AND SAW IT WEST OF THE WHITE HOUSE. IT WAS PRIMARY ONLY AND IT APPEARED TO BE TRAVELING AT A VERY HIGH RATE OF SPEED. IT THEN STARTED A RIGHT TURN AND CAME BACK TOWARDS DCA AND THE WHITE HOUSE. MYSELF AND OTHER CONTROLLERS GAVE THE SUPERVISION UP TO THE SECOND INFORMATION AS TO THE POSITION OF THE TARGET. WHEN THE TARGET WAS JUST WEST OF DCA THE TARGET DISAPPEARED. SECONDS LATER AN UNKNOWN DCA CONTROLLER TOLD US THAT THE PENTAGON WAS HIT...

I certify, to the best of my knowledge and recollection, the above statement is correct.

  
Signature

9/12/01  
Date

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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This statement concerns the ACCIDENT involving AAL77 at \_\_\_\_\_  
on \_\_\_\_\_ UTC. My name is ROBERT J BRICKLEY, JR  
(BY)\*. I am employed as an (ATCS) (SATCS) by the FAA at the Dulles ATCT,  
Chantilly, VA. I was working the \_\_\_\_\_ position from \_\_\_\_\_ UTC to  
\_\_\_\_\_ UTC.

Text of statement:

I OBSERVED A PRIMARY TARGET APPROXIMATELY 8 MILES EAST OF MANASSAS AIRPORT MOVING EASTBOUND AT A HIGH RATE OF SPEED. I ADVISED THE OS (OTHER CONTROLLERS WERE DOING THE SAME). THE AIRCRAFT PROCEEDED TO A POINT APPROXIMATELY 8 MILES SOUTHWEST OF PS6, MADE A RIGHT 360° TURN, PROCEEDED NORTHEAST BOUND AND DROPPED FROM RADAR APPROXIMATELY 6 MILES SOUTH-SOUTHWEST OF PS6.

EQUIPMENT CONFIGURATION WAS UNKNOWN.

I certify, to the best of my knowledge and recollection, the above statement is correct.

  
Signature

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)

Date 9/12/01



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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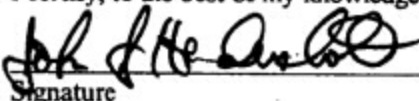
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This statement concerns the accident involving AAL77 at the Pentagon, on September 11, 2001, 1340 UTC. My name is John Hendershot (SW)\*. I am employed as an (~~ATCS~~) SATCS by the FAA at the Dulles ATCT, Chantilly, VA. I was working the RS position from        UTC to        UTC.

Text of statement:

Both World Trade Centers had been crashed into. There was a report that one aircraft had been hijacked and another was missing. Several controllers reported simultaneously to me that they saw a primary target moving at a high speed in DCA airspace heading for the White House. I immediately picked up the hot line to the White House and advised them that Dulles Approach observed a target closing on the White House at a high speed. The White House Operator acknowledged. I then immediately advised DCA Approach of the same. I then described the movements of the aircraft on the Critical Event Eastern Region Hot Line as they were described to me by the controllers observing the primary return. I continued this for a short period of time, until we lost Radar contact with the aircraft. The equipment configuration is unknown.

I certify, to the best of my knowledge and recollection, the above statement is correct.

  
Signature

9/12/01  
Date

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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This statement concerns the INCIDENT involving PRIMARY TARGET at IAD on 9/11/2001 UTC. My name is ROBERT SEVERY  
I am employed as an ATCS (SATCS) by the FAA at the IAD ATCT,  
CHAMNEY VA. I was working the NORTH DEPT position from 1319 UTC to 1345 UTC.

Text of statement: I was working the North Dept position when the incident occurred. We had been advised that all departures would be stopped. I was told that I had 2 more coming to me. Both acft did depart; were radar identified and handed off to North High as per Jot. Shortly after handing off the 2<sup>nd</sup> acft, I heard final Controller mention a primary target. The time is not fixed in my mind but it was @ 1330-1335. The target was eastbound at a high rate of speed based on the tracking of the it. I believe that I saw the target initially just to the SE of Dulles. To me it appeared as though it were heading 090° ± 10°. It appears that it was heading towards P-56 where the White House is.

I certify to the best of my knowledge and recollection, the above statement is correct.

Signature

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)

Date

9-12-01

DR

OVER





El called to anyone at SEA on the 62 line to advise of a primary target moving fast towards P56. After the 2<sup>nd</sup> call, someone acknowledged, "El see him". At that time or shortly after, someone on the 62 line confirmed "notifying P56". Then, the a/c (target) turned South to parallel the North Line to SCA as though it were entering a west downwind for Rev 1 at SCA. For a few miles, it continued South. Then, it made a right turn for a moment, it appeared as though it were turning toward SCA departure being handed off to our High Sector. At that moment, El thought it may try to hit the dept. or perhaps it may be a U.S. fighter checking the area (since the observed target movement was still very fast). However, the target continued the right turn back to NE heading - again, aimed, in my opinion, at P-56. El think El called again on the 62 line to try to warn DC. Everything was a blur at that moment. Thought someone re-affirmed contacting White House. Target disappeared approx 3-4 miles from P56. Shortly after, SCA called on 62 line to advise that the target had hit the Pentagon.

Robert Clevery  
9/12/01, Ret



He called to anyone at SCA on the 62 line to advise of a primary target moving fast towards P56. After the 2<sup>nd</sup> call, someone acknowledged, "I see him". At that time or shortly after, someone on the 62 line confirmed "notifying P56". Then, the a/c (target) turned South to parallel the North fence to SCA as though it was entering a west downwind for Rev 1 at SCA. For a few miles, it continued South. Then, it made a right turn. For a moment, it appeared as though it were turning toward the SCA departure being handed off to our High Sector. At that moment, he thought it may try to hit the dept. or perhaps it may be a U.S. fighter checking the area (since the observed target movement was still very fast). However, the target continued the right turn back to a NE heading - again, aimed, in my opinion, at P-56. He thinks he called again on the 62 line to try to warn SCA. Everything was a blur at that moment. Thought someone re-affirmed contacting White House. Target disappeared approx 3-4 miles from P56. Shortly after, SCA called on 62 line to advise that the target had hit the Pentagon.

Robert Klevary  
9/12/01, RA



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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This statement concerns the incident involving primary target at IAD, on 9/11/01, 1330 UTC. My name is Robert Utley  
(u)\* I am employed as an (ATCS) (~~SATCS~~) by the FAA at the IAD ATCT,  
Chantilly, VA. I was working the AD/DD position from 1255 UTC to 1345 UTC.

Text of statement: I observed a primary target approximately 7 miles east of ANL, heading eastbound, when the target was about 1 mile west of DCA it made a right turn heading southwestbound. When it was about 3 miles north of DAA it made a sharp turn northbound, when it was about 10 miles East of ANL it made a sharp turn eastbound, the target then dropped out of radar about 3 miles east west of DCA. Equipment configuration was unknown to me.

I certify, to the best of my knowledge and recollection, the above statement is correct.

  
Signature

9/12/01  
Date

\*OPERATING INITIALS.

IAD Hub Form 8020-3 (6/01)



**PERSONNEL STATEMENT  
FEDERAL AVIATION ADMINISTRATION  
DULLES AIR TRAFFIC CONTROL TOWER**

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This statement concerns the Accident involving AAL 77 at                      on 8/11/01 UTC. My name is Rudolph R. H. D.  
(PH). I am employed as an (ATCS) (SATCS) by the FAA at the Washington Dulles ATCT, Chantilly, VA. I was working the North Departure position from 1108 UTC to 1224 UTC.

Text of statement:

At approximately 1219 Zulu, AAL 77 checked in on the Departure frequency, leaving one thousand three hundred climbing to three thousand feet. I radioed 1000 feet AAL 77 and continued its climb to five thousand feet. My next transmission to AAL 77 was to continue its climb to eleven thousand feet. My next transmission to AAL 77 was to clear the aircraft direct Linden then issued a frequency change to South High one 118.67. Nothing was out of the ordinary in the handling of AAL 77. The Equipment configuration was unknown.

I certify, to the best of my knowledge and recollection, the above statement is correct.

Signature

\*OPERATING INITIALS. PH

IAD Hub Form 8020-3 (6/01)

Date

8/13/01





## **Briefing Item**

### **American Airlines Flight 11**

#### **Summary:**

American Airlines Flight 11 (AAL11), a Boeing 767, departed Boston Logan at 8:00am Eastern Standard Time, destined Los Angeles. The aircraft proceeded westbound, on course, as instructed. At 8:22am, approximately twenty miles east of Albany, New York, Boston Air Route Traffic Control Center (ZBW) observed a change in the route of flight and the disengaging of the transponder. At 8:25am, based on cockpit communications ZBW declared a hijack was in progress. Communication attempts with the aircraft were made with no response. ZBW advised the New England Regional Communications Center of the situation. Review of primary data returns indicates the flight proceeded southbound along the Hudson River towards New York City. At 8:38am ZBW advised New York Air Traffic Control Center (ZNY) of the possible hijacking situation. At 8:45am New York TRACON was advised by ZBW of the possible hijacking. Primary tracking capability was lost just north of the World Trade Center. Final radar returns of the primary track indicate the aircraft had a ground speed of 350 knots with an unknown altitude. Impact to the World Trade Center occurred at 8:47am.

AAT-20  
September 12, 2001

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Updated September 13, 2001, with receipt of additional facility data –

At 8:16 a.m. the flight begins a slight turn, which is prior to the time reported in yesterday's briefing.



## **ALERT BULLETIN**

All reports are based on preliminary information and are being investigated by the appropriate authorities. Public availability to be determined under 5 U.S.C 552.

**Distribution of this document is limited. Duplication, reproduction, or further distribution shall not be made unless approved by AAT-1 or AAT-20.**

**SUBJECT:** Aircraft Accident, AAL11/B762 BOS - LAX

**CREW/PASSENGER INFO:** 81 passengers, assumed 11 crew

**DATE/TIME:** 9/11/01 at 8:47am ET

**LOCATION:** World Trade Center, NYC

**WEATHER:** VFR

**SUMMARY:** Aircraft departed BOS normally at 8:00am. The aircraft proceeded on course as instructed. Near Albany, NY, the aircraft shut off his transponder and turned south bound, toward New York City. ZBW lost radar contact at 8:44 am ET. The aircraft proceeded south via the Hudson River and crashed into the world trade center at 8:47am

**FOLLOW-UP ACTION:**

Recorded radar and audio tapes are being reviewed.

AAT-20

October 27, 2003, 7:27 am ET, supersedes all previous editions

EZ/0720 AA

Distribution: AAT-1/2/3/20/100/200; ATP-1;AAI-100;Axx-500; File



Ground track history of AAL11 from south of Albany, NY down the Hudson River

Radar depiction of the World Trade Center

Last radar return, unknown altitude, ground speed – 350 knots

Newark International Airport

LaGuardia Airport

John F. Kennedy Airport

NYC

Radar depiction of Albany, NY Navigational Aid: an unknown communication at 8:24:38am ET “...we have some airplanes just stay quite and you will be ok, we are returning to the airport...”

Primary radar returns cease at 8:22:38am ET

Last transponder radar return at 28,900 feet at 8:20:48am ET



**American Airlines Flight 11**  
**Boston – Los Angeles**

BOS TWR	0756:27	Ground Control instructs AAL11 to taxi.
BOS TWR	0759:11	AAL11 cleared for takeoff.
	0800:00	Flight departed Boston Logan.
BOS TRACON	0804:48	Flight checks onto Boston TRACON.
	0805:14	AAL instructed to contact Boston Center.
BOS CENTER	0809:17	Flight checks on.
	0813:33	AAL 11 instructed to turn 20 degrees right for traffic Response from flight is normal.
	0813:49	AAL11 instructed to climb and maintain Flight Level 350 Repeated with no response.
	0814:46	Controller relays AAL is NORDO to next sector
	0816:45	unintelligible communication—very weak Flight turns to the heading 293 degrees.
	0817:58	unknown sound
	0821:18	Tag drops, enters coast track status. Primary only Flight turns slightly more northwest.
	0824:38	unknown communication “we have some planes just stay quiet and you will be ok we are returning to the airport” (AAT-20 interpretation)
	0824:55	Unknown communication “nobody move everything will be ok if you try to make any moves you’ll endanger yourself and the airplane just stay quiet” (AAT-20 interpretation)
	0825:00	Facility log entry: Based on cockpit communications we have declared a hijack is in progress. ROC, ATCSSC, ZBW-1 notified
	0833:59	Unknown transmission “nobody move please we are going back to the airport don’t try to make any stupid moves” (AAT-20 interpretation)
	0846:31	Last primary target (from analysis of EWR ASR-9)
	0847:00	Impact occurred

AAT-20  
 September 13, 2001  
 9:00 am





**American Airlines Flight 11**  
**Boston – Los Angeles**

BOS TWR	0756:27	Ground Control instructs AAL11 to taxi.
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ZNY	0839:00	Notification to ROC of possible hijack due to information received from ZBW
EWR	<b>0844:50</b>  <b>0846:31</b>	<b>EWR ASR-9 radar antenna picks up the flight passing</b> <b>GW Bridge.</b> <b>Last radar return, unknown altitude, 350 kts ground</b> <b>speed.</b>
N90	0850:00	EWR advises of possible aircraft crashing into World Trade Center

AAT-20  
September 13, 2001  
9:00 am



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N90	0850:00	EWR advises of possible aircraft crashing into World Trade Center

AAT-20  
September 14, 2001  
9:00 am



ZBW-ARTCC-148  
AAL11

Page 1 of 7



1235:42	R56	kennedy
1235:44	ZBW IGN	yeah heads up for you here i gotta an american eleven he's right over kingston right now he's at we think he's at flight level two nine zero there appears to be some possible problem with him he departed boston going to ah los angeles but uh somewhere along the way here he took a left turn and he's not talkin to anyone hasn't talked to anybody in about seventy five maybe a hundred miles so he's southeastbound right now so he's gonna pass just like over carmel and again we don't have a verified altitude we think he's at flight level two nine zero we're trying to verify that
1236:15	R56	you have a code on him
1236:18	ZBW IGN	ah no he's a slant xray he's uh theres no code on the guy he's slant xray
1236:20	R56	you're kidding me
1236:21	ZBW IGN	and we had approved that so he's a primary right now right over kingston flight level two nine zero supposedly
1236:27	R56	primary
1236:28	R56	supposedly two nine zero and he's headed southeastbound
1236:30	ZBW IGN	headed southeastbound now and it he's gonna go between oh it looks like maybe right over dueys intersection so i'm just given you a heads up we're not talkin to him no ones talked to him about the last twenty minutes
1236:38	R56	and what's his call sign





1236:42	BOS	i'll i'll call you when he when he gets a little close to your boundary ok
1236:43	R56	ok
1236:44 1237	BOS	w d
1237:16	BOS	kennedy kingston ninety three
1237:22	R56	kennedy
1237:23	BOS	yeah you combined with east texas
1237:24	R56	no i'm tellin him about it now
1237:25	BOS	alright just a heads up for you though we're gettin some word now that we're not talkin to the guy but there's threatening transmissions coming from the airplane so there there appears to be something going on with the airplane
1237:33	R56	uh huh
1237:34	BOS	our suggestion is to keep airplanes away from him (unintelligible) gonna enter you alls airspace
1237:38	R56	ok
1237:39	BOS	alright so just a heads up somethings goin on with him alright
1237:40	R56	alright k m



1237:41 1238	BOS	alright w (unintelligible)
1238:35	R56	eagle flight nine thirty six descend and maintain flight level three one zero thirty one
1238:40 1239 1240	EGF936	three one oh eagel flight nine thirty six
1240:27	R56	eagle flight nine thirty six i'm gonna need your help sir i'm hafta vector you uh towards another airplane see if you can verify his altitude for me
1240:33	EGF936	alright
1240:35	R56	ok fly heading of uh zero one zero that should ah put you on a intercepting track
1240:40	EGF936	ok zero one zero eagle ah nine three six
1241:00	ZBW IGN	kennedy kingston ninety three
1241:01	R56	kennedy
1241:03	ZBW IGN	yeah that american eleven thing about just about over the dueys intersection now
1240:05	R56	yeah i see him now
1240:06	ZBW IGN	ok so we're gonna we're not talkin to him he's you know ah ah he's not talkin to anybody right now
1240:11	R56	are you sure of his altitude though or are you not sure



1240:14	ZBW IGN	we think he's showin twenty nine we had two airplanes fly over him one at thirty one and one at thirty five they looked like he was at twenty nine
1240:19	R56	ok i'm gonna do the same im gonna send somebody over the over top of him also
1240:21	ZBW IGN	ok
1240:22	R56	alright
1240:23	ZBW IGN	alright buddy
1241		
1242		
1242:29	R56	eagle flight nine thirty six ah fly heading of zero two five now
1242:33	EGF936	zero two five roger
1243		
1243:03	R56	eagle flight nine uh nine thirty six that traffic is right at twelve o'clock and about twelve miles southwestbound uh just verify if you think he's if he's at two nine zero
1243:13	EGF936	roger
1243:49	EGF936	still twelve o'clock
1243:51	R56	yeah he should be right at twelve o uh i'd say one o'clock and about five miles now sir
1243:55	EGF936	we're lookin
1244		



1244:15	R56	you should be passin him right underneath you now if you see em
1244:21	EGF936	not yet
1244:30	R56	eagle flight nine thirty six he should be right behind you now sir uh turn right heading zero niner five vectors for thee uh thee arrival
1244:35	EGF936	ok right turn to zero nine five eagle uh nine thirty six sorry
1244:39	R56	that's ok thank you
1244:58	R56	alright and eagle flight nine thirty six i need you to expedite the turn
1245:01 1246	Unknown	(unintelligible)
1246:32	R56	gulfstream six quebec sierra by any chance you have traffic at twelve o'clock and about eight miles heading southwestbound uh altitude unknown if it's possible can you see him he should be off at eleven o'clock now since your turning
1246:43 1247 1248	N6QS	i'm lookin six quebec sierra
1248:24	R56	fedex fifteen eighty uh you have traffic twelve o'clock one ta and about one five miles heading southwestbound altitude unknown sir if you can see him ah let me know and let me know if you can ah estimate his altitude please
1248:37	FDX1580	fedex fifteen eighty we're lookin sir uh say his relative position to us again





ZBW-ARTCC-148  
AAL11

Page 7 of 7

1248:42      R56      he's ah just about twelve oclock and one five miles heading southwestbound

1248:43      FDX1580      alright

1249

1250

1250:06      R56      fedex fifteen eighty see any aircraft out there in front of you

1250:10      FDX1580      uh no sir we don't

1250:13      R56      fedex fedex fifteen eighty cleared direct deer park

1250:15      FDX1580      okay understand cleared direct deer park fedex fifteen eighty

1251

1252

1253

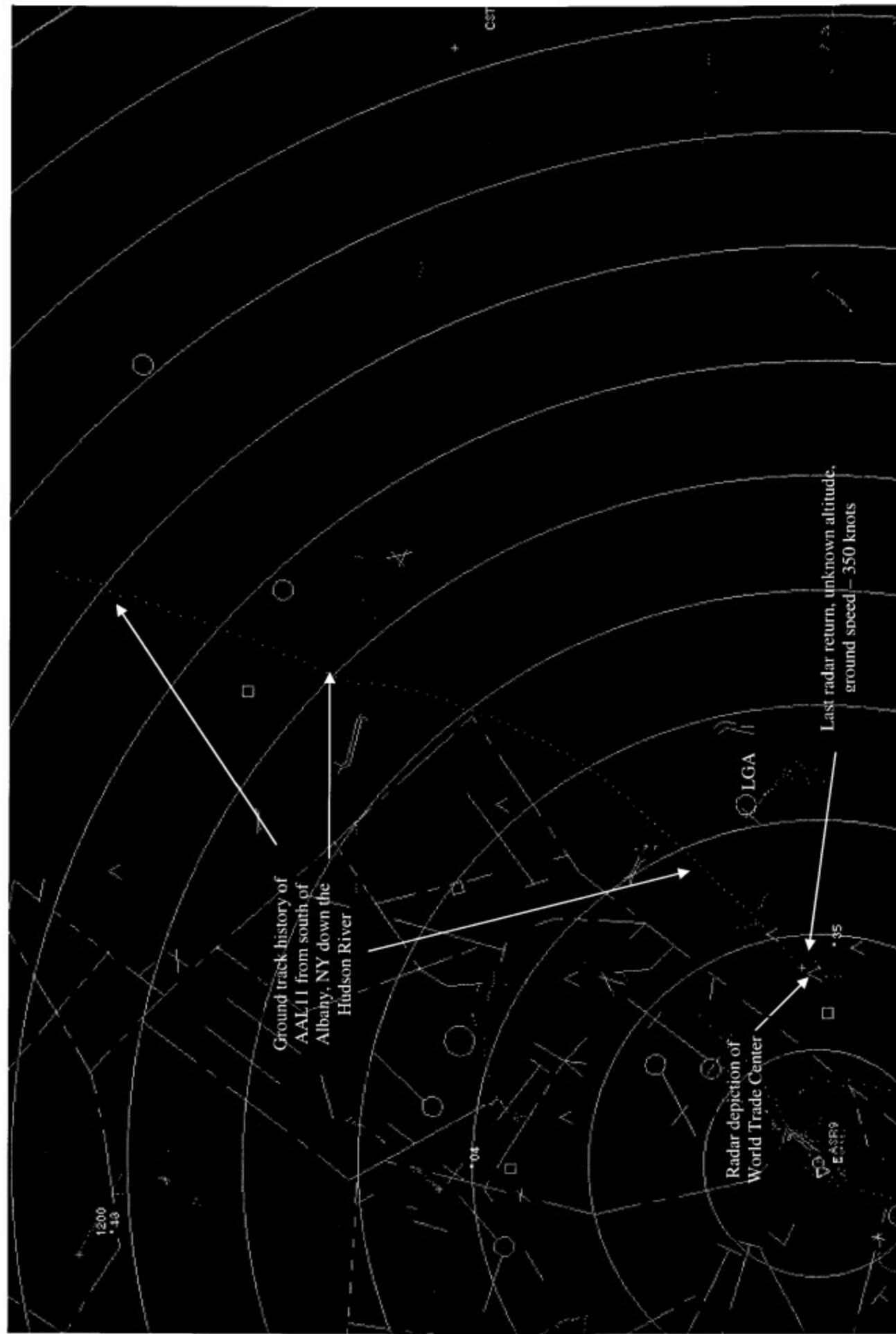
1254

1255

End of Transcript



**AAL11, Boeing 767, Radar Track  
September 11, 2001, 8:47am ET**





## **K90 Preliminary Transcript**

1235:09Z

ZBW TMU calling Tim Spence Operational Supervisor at K90....

K90 - Cape Approach.

ZBW - This is Dan Buena(?) calling from Boston Center. I have a situation with American eleven, a possible hijack.

K90 - American 11?

ZBW - Yes sir, departed Boston going to L A X. Right now he's south of Albany. Like to scramble some fighters to go tail him.

K90 - Oh, OK, I'll talk to Otis here.

ZBW - OK, and just put a.....he wants.....just depart and we'll put a flight plan in for him and aim him to ..towards,uh, Hampton direct.

K90 - OK, I'll talk to these guys here and see what we can do.

ZBW - OK

K90 - And, right now he's on the ground in Albany?

ZBW - Uh, no, no, no, no, no. He's uh, he's right now southwest of Alb.... He's airborne about 40 to the south of Albany. Primary only.

K90 - Uh, OK, I'll call uh, I'll talk to them right now. And who is this here?

ZBW - Dan Buena(?) from Boston Center TMU.

K90 - Dan at TMU. OK.

ZBW - Allright.

K90 - Allright, TJ.

This conversation ended at 1235:56Z.

1236:08Z

Tim Spence, OS at K90 calling FMH ATCT.

FMH ATCT - Tower.

K90 - Hey tower, just to let you know, there is a possible hijacking of American Flight 11 and uh, we're.. we're in the process of right now, Boston TMU in the Center,trying to get a couple of fighters scrambled to get up to follow them.



FMH ATCT - OK

K90 - Alright, just trying to give you a heads up. Hey, uh, who..who can I call over there at ops to give them that information? Do you know or have any contacts?

FMH ATCA - Uh, Uh, well, base ops and command post....command post where the SOF desk would be four three three zero.

K90 - four three three zero ok thanks.  
Conversation ended at 1236:37Z

1241:27Z  
VACAPES calling several facilities.

Open Line - Towers on. Cape Approach on. Giant Killer. This is Huntress placing PANTA four five, four six on battlestation. I repeat battlestation. Time one two four one authenticate hotel romeo. All parties acknowledge with initials. Command post, Giant Killer, Tower JC, Approach Tango Juliet.

K90 - Tango Juliet and say again the call sign..

VACAPES - Panta....Papa Alpha November Tango Alpha four five four six.

K90 - Allright, Tango Juliet.

VACAPES - Juliet Papa, alright all parties are clear to drop.

1243:08Z  
K90 calling ZBW TMU

ZBW - TMU

K90 - Yeah this is Cape TRACON is Dan there?

ZBW - That's me.

K90 - Yeah, uh, we, I just talked to Otis here and they said they needed a NEADS authorization.

ZBW - We are working with NEADS, they should be calling you over there.

K90 - Just to let you know, we got the call on a PANTA papa alpha november tango alpha four five and four six, flight of two. They will be airborne soon.

ZBW - Great, thank you.

K90 - OK, TJ.





1244:39

ZBW TMU calling K90.

ZBW - TMU on the 41.

K90 - Cape TRACON on.

ZBW - You said PANTA four six?

K90 - Four five and four six. And four six yeah.

ZBW - OK, got it.

K90 - TJ

Conversation ended 1244:48

1246:47Z

Huntress calling several facilities.

Huntress - This is Huntress with an active air defense scramble for PANTA four five four six. Time one two four six. Authenticate Delta Xray. Scramble immediately PANTA four five four six heading two eight zero flight level two niner zero. Contact Huntress on frequency two two eight decimal niner, backup three six four decimal two. All parties acknowledge with initials. Command post, tower.

FMH ATCT - JL in the tower.

Huntress - Approach.

K90 - tango juliet.

Huntress - Giantkiller all parties are clear to drop . Juliet papa here.

**THE CONVERSATION FROM THIS POINT ON IS BETWEEN PANTA45,  
FMH TOWER AND K90 HIGH SECTOR.**

12:50:57

FMH ATCT - approach tower

K90 - approach

FMH ATCT - yeah here come the two scrambles off ah (pause) alright

K90 - OK



12:51:03 FMH - alright hn

---

12:53:22

Pilot - departure panta four five

K90 - panta four five cape approach say altitude

Pilot - were passing three for flight level two nine zero two eighty heading

K90 - panta four five ah roger

K90 - cape cape two one line

ZBW - cape go

k90 - yeah panta four five three four zero one code out of five thousand ah departing runway five at otis

ZBW - ok i'll show him departed then and ah i don't see him yet i'll let you know

K90 - he wants to go right up to two nine zero whatever he's doing

ZBW - thats fine two nine is fine with us he can go right up to it i'll let you know when i see him

K90 - ok

ZBW - thanks sm

K90 - sw

Pilot - departure panta four five

12:54:00

K90 - panta four five proceed on course

Pilot - ok climbing through eleven for flight level two nine zero

ZBW - cape

K90 - yea

ZBW - radar contact flight of two right

K90 - yea



ZBW - ok thanks

K90 - four five you are a flight of two correct

Pilot - thats affirm

K90 - roger contact boston center two nine zero point three

Pilot - panta switch five

conversation ended at 12:54:16Z

Tom and Bert - Between 1236:37 and 1241:27, I called the FMH SOF desk at (demo) and was transferred to some office that did not answer. I then called FMH Base Ops, they knew nothing of the situation and suggested that I contact the US North East Air Defense Sector (NEADS) at (demo). I called them and they stated that they were aware of the situation and that a scramble order was underway. Less than one minute later, the battlestation call was underway.

Timothy J. Spence, K90 OS, (b) (6) (demo)



1221:18 Radar contact is lost by

12:09:22 Aircraft cleared to FL280

12:10:13 Aircraft cleared to FL290

12:11:58 Aircraft issued traffic advisory

12:13:29 Aircraft issued turn 20° right for traffic-----  
LAST normal reply

12:24:57 Unknown transmission: "Nobody move.  
Everything will be OK. If you try to make any moves  
you'll endanger yourself and the airplane. Just stay  
quiet".

12:33:59 Unknown transmissions: "Nobody move.  
Please, we are going back to the airport. Don't try to  
make any stupid moves".

12:28:35 Turns Southwest, hard left straight south  
toward NYC

1247 Aircraft impacts World Trade Center





This space  
Is for  
Pagination  
And allows  
For  
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Subject: **INFORMATION:** Partial Transcript;  
Aircraft Accident; AAL11; New York, NY;  
September 11, 2001

Date: September 28, 2001

From: New York ARTCC

Reply to  
Attn. of:

To: ZBW-ARTCC-148

This transcription covers the New York Center Radar Sector 56 position for the time period from September 11, 2001, 1230 UTC, to September 11, 2001, 1255 UTC.

Agencies Making Transmissions

Abbreviations

Boston Center Kingston Sector  
New York Center Radar Sector 56  
AMR American Eagle, Inc. Flight 936  
Gulfstream N6QS  
Federal Express Corporation Flight 1580

ZBW IGN  
R56  
EGF936  
N6QS  
FDX1580

I hereby certify that the following is a true transcription of the recorded conversations pertaining to the subject aircraft accident involving AAL11:

Martin J. Fournier  
Quality Assurance Specialist  
New York ARTCC

121230  
1231  
1232  
1233  
1234  
1235  
1235:39 ZBW IGN kennedy kingston ninety three



Martin J. Fournier

File: 8020.1

WP: RA42 Memo UAL175.doc

ZNY-505.2:M. Fournier:MJ:x1055:09/27/2001

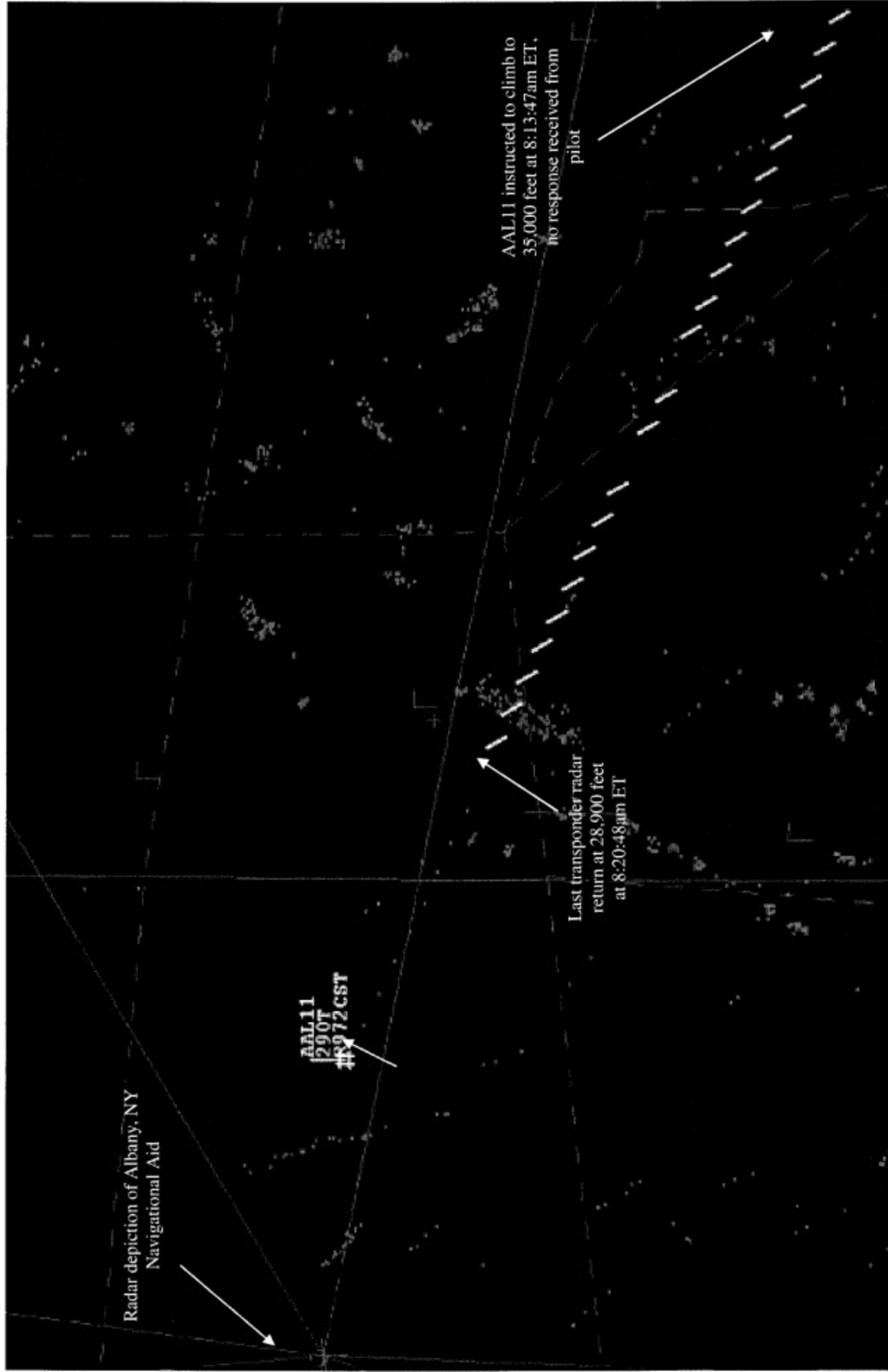






**AAL11, Boeing 767, Radar Track**  
**By the Boston ARTCC Long Range Radar**  
**September 11, 2001, 8:47am ET**

Prepared by AAT-20, 9/14 0830







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**Boston – Los Angeles**

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N90	0850:00	EWR advises of possible aircraft crashing into World Trade Center

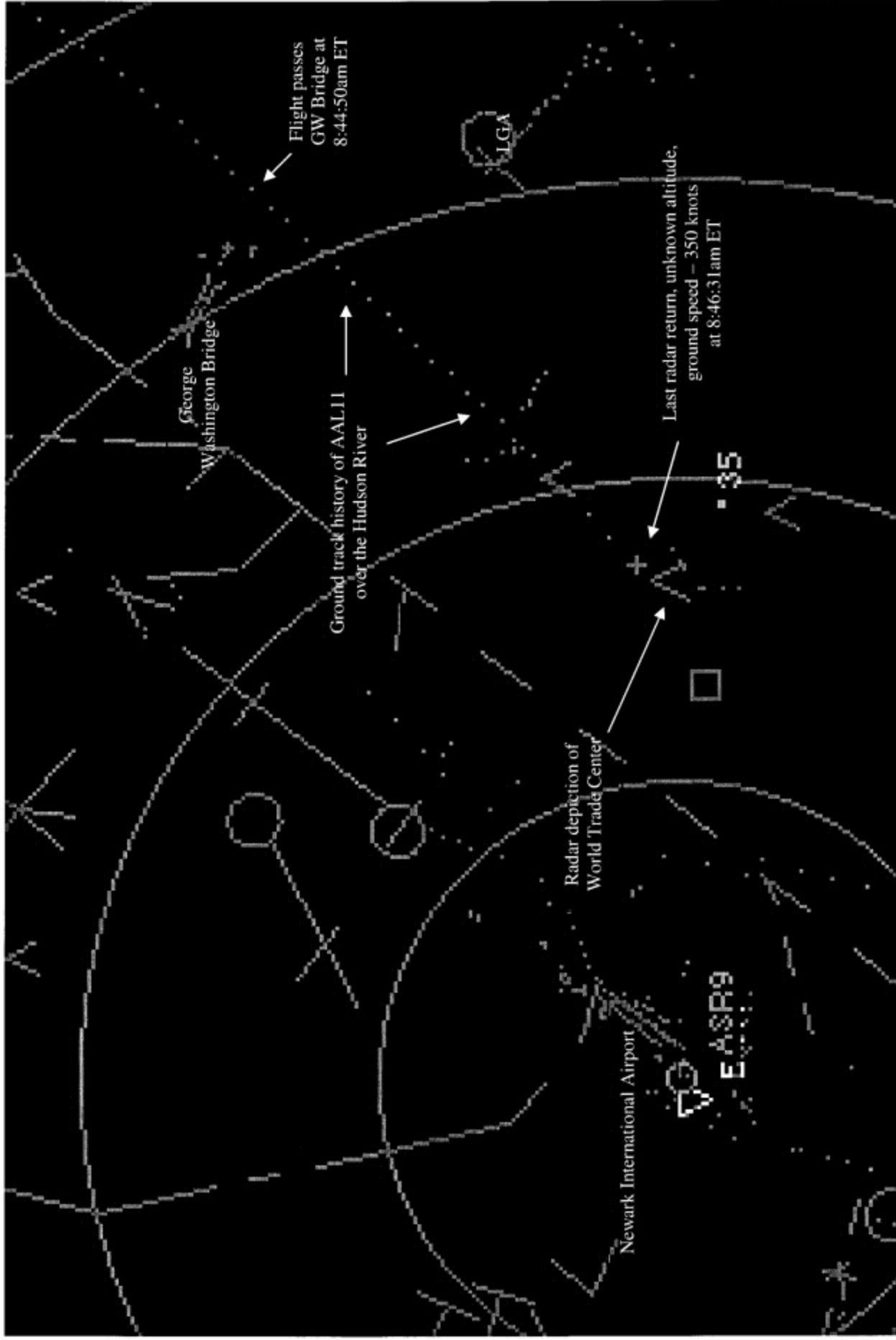
AAT-20  
September 14, 2001  
9:00 am



**AAL11, Boeing 767, Radar Track  
By the Newark Airport ASR-9 Radar Antenna  
September 11, 2001, 8:46:35am ET**

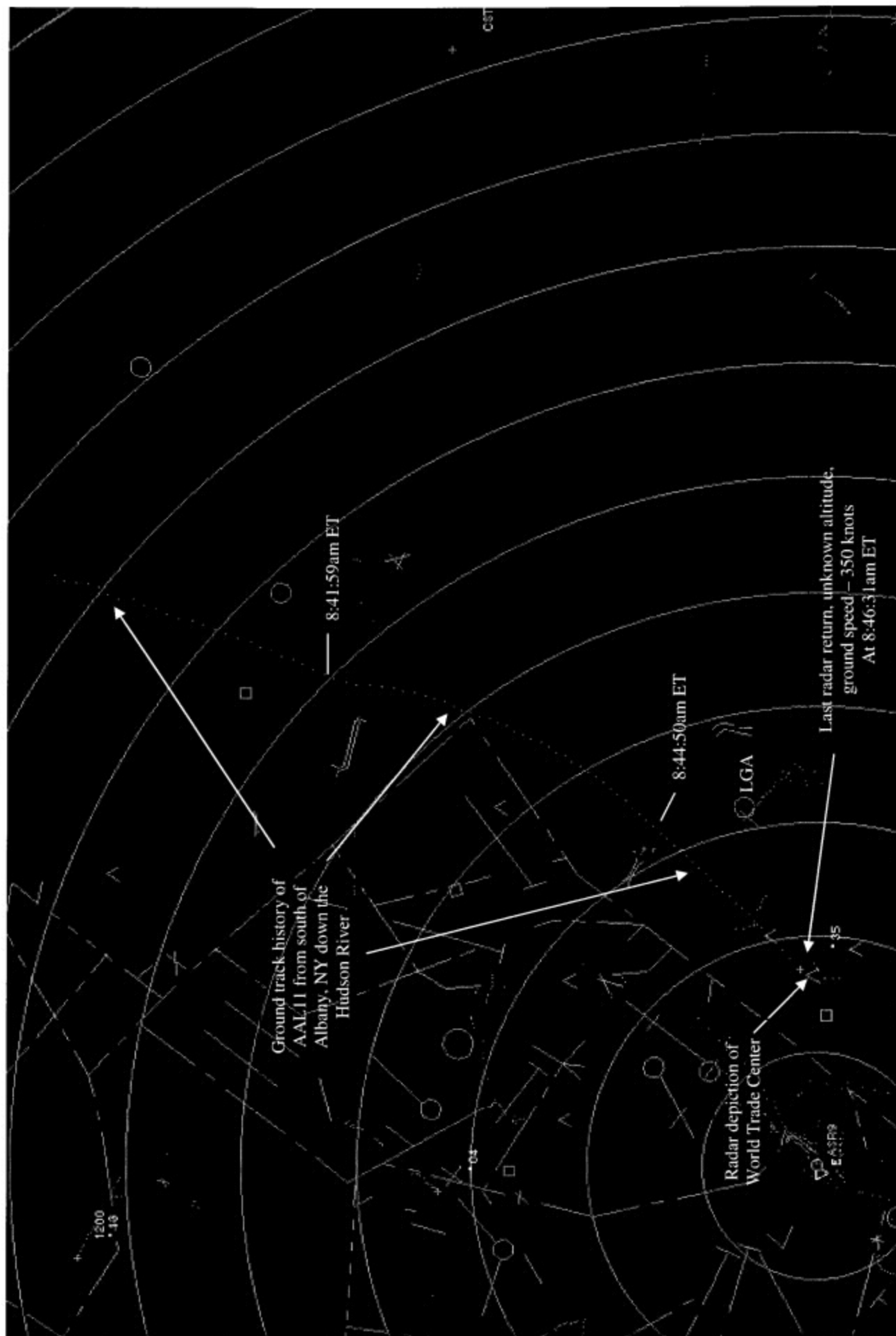
Prepared by AAT-20, 9/17 0900

3





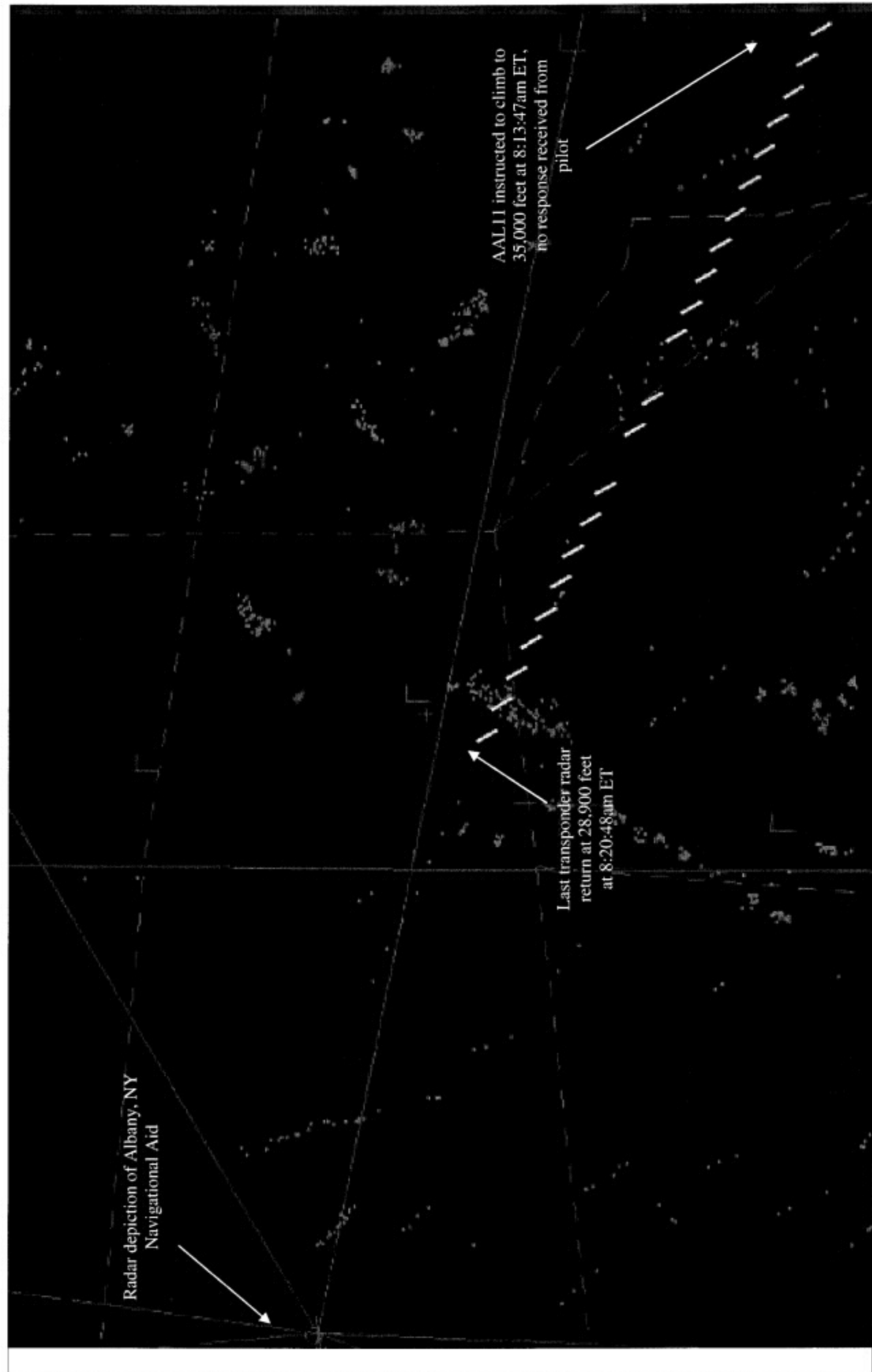
**AAL11, Boeing 767, Radar Track**  
**By the Newark Airport ASR-9 Radar Antenna**  
**September 11, 2001, 8:46:35am ET**  
 Prepared by AAT-20, 9/17 0900





**AAL11, Boeing 767, Radar Track**  
**By the Boston ARTCC Long Range Radar**  
**September 11, 2001, 8:46:35am ET**  
Prepared by AAT-20, 9/17/0900

1







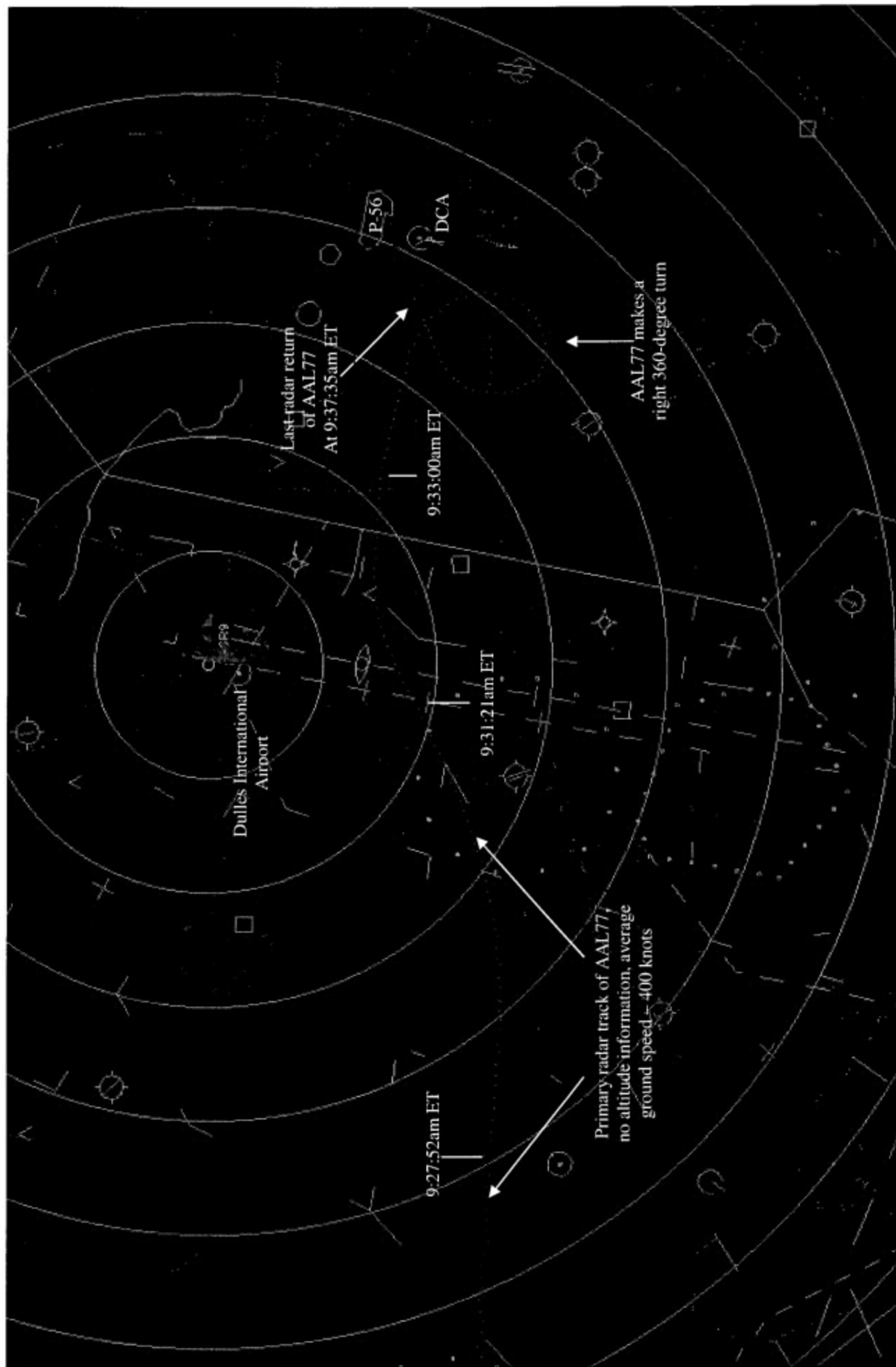
**American Flight 77**  
**Washington Dulles to Los Angeles**

Dulles ATCT	0820:00	Aircraft Departs.
ZDC	0825:49 0840:05	Aircraft checks on and is instructed to climb to Flight Level (FL) 270. Aircraft is instructed to contact Indy Center (wrong Frequency and sector).
ZID	0840:12  <b>0850:51</b> <b>0854:43</b> 0856:32  <b>0856:00</b> 0909:00	Aircraft checks on frequency level FL330. Controller instructs. aircraft to change beacon code to 3743. <b>Last radio communication with aircraft.</b> <b>Aircraft begins unauthorized turn to the south at 35,000 feet.</b> Controller calls Aircraft after he observes aircraft descend approximately 400-500'. <b>Radar contact is lost. No Further contact with aircraft</b> Reported to ROC (was inadvertently not logged) possible aircraft accident due to simultaneous loss of radio communications and radar. No indication of hijacking so no further action taken
Dulles ATCT	0925 (est.)   0933   <b>0937</b>	Controller observes primary target at high-speed transitioning west to east toward DC   Controller informs Operational Supervisor, whom in turns advises Washington National (DCA). Operational Supervisor advises the USSS via a "hotline" of the unknown aircraft.   <b>IAD ASR-9 shows last radar return</b>
DCA	<b>0934</b>  0936  0938	<b>Aircraft is observed completing a right 360 turn, just south of the Pentagon.</b> National instructs a military C130 (Golfer06) that had just departed Andrews (Scheduled Flight) to intercept and identify it. GOLFER06 reports it was a B757, low level, and fast moving. USSS is advised. AAL77 crashed into southwest side of Pentagon.



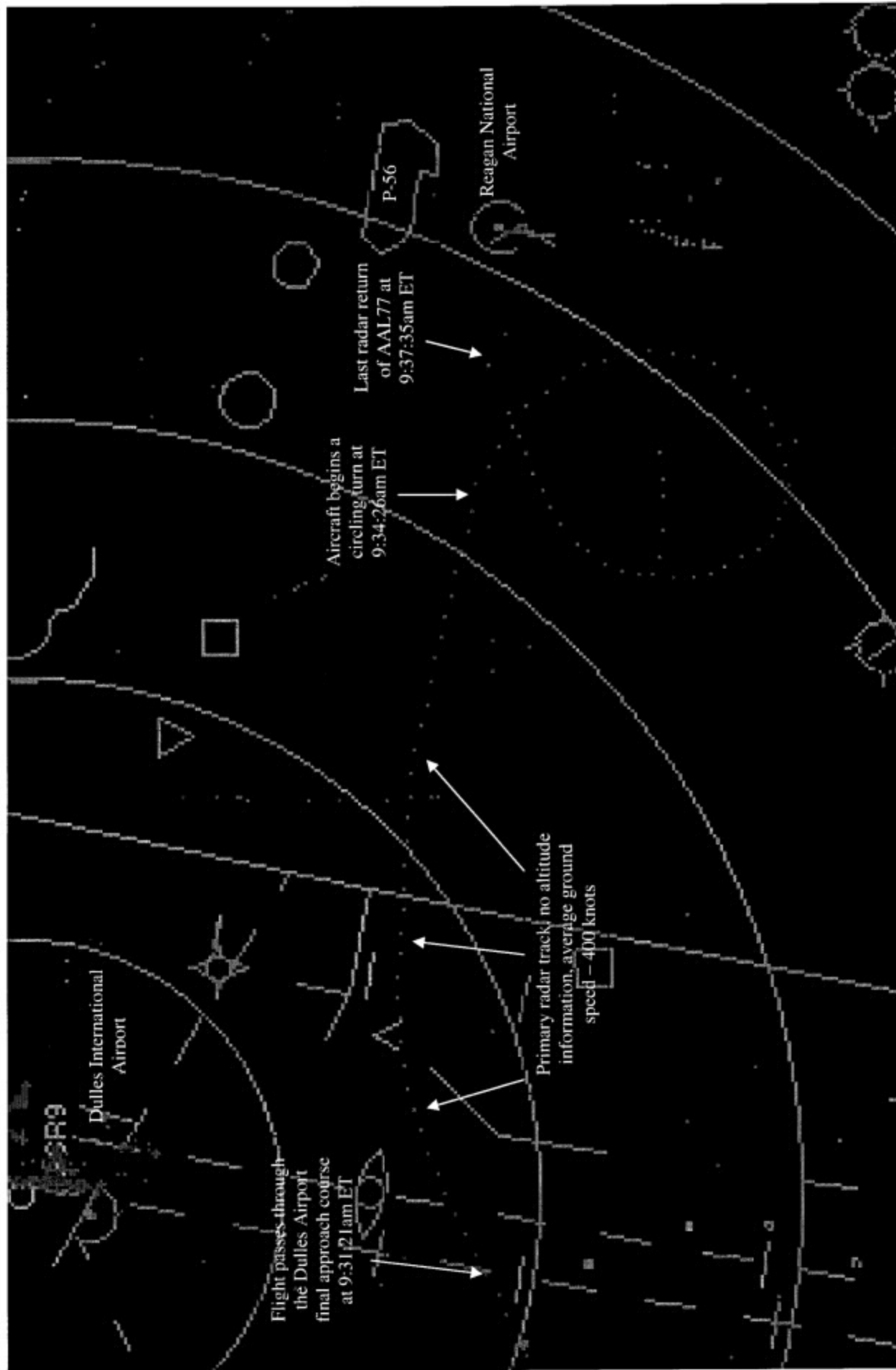
**AAL77, Boeing 757, Radar Track**  
**By the Dulles International Airport ASR-9 radar antenna**  
**September 11, 2001, 9:38am ET**

Prepared by AAT-20, 9/17 0900





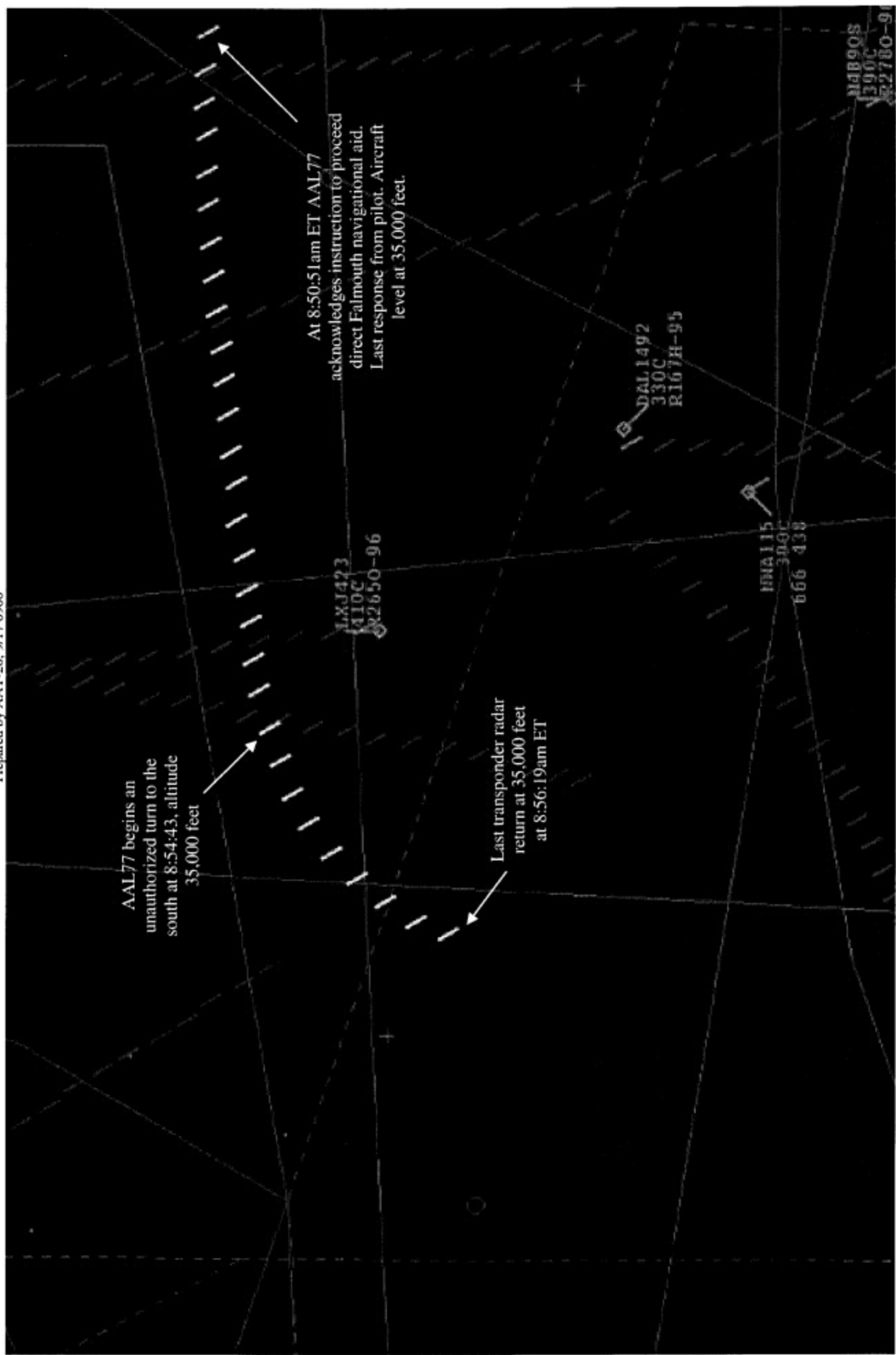
**AAL77, Boeing 757, Radar Track**  
**By the Dulles International Airport ASR-9 radar antenna**  
**September 11, 2001, 9:38am ET**  
 Prepared by AAT-20, 9/17 0900





# AAL77, Boeing 757, Radar Track By the Indianapolis ARTCC Long Range Radar September 11, 2001, 9:38am ET

Prepared by AAT-20, 9/17 0900







**Request List from FAA Facilities**  
**Last Update 9/12 0300ET**

**AEA** – Voice and CDR data in RAPTOR format from:

New York TRACON – Time 0930-1015ET

Received AAL11

- Still require primary's UAL175

Washington National – Pentagon

Received Radar AAL77

Dulles – Both Pentagon

Received Radar AAL77

### Pittsburgh – Camp David incident

Received

**- Still require primary's UAL93 from Clarksburg**

Washington Center radar for AAL77

Received

Washington Center voice

Received

## New York Center radar

Received

New York Center voice replay

Received

Voice tape Millville AFSS

## Waiting

**AGL** - Voice and CDR data in RAPTOR format:

Cleveland for UAL1898

## Waiting

Cleveland Center radar for AAL77

Received

Cleveland Center voices replay for AAL11.

Received

Indianapolis Center radar

Received

Indianapolis voice tape via telephone

Received

Cleveland Center radar for DAL1989

## Waiting

Cleveland Center voice for DAL1989

Waiting

ANE - Boston Center radar and voice replay

Received

### Paper NTAP's

ZBW – ZOB – ZID-ZDC-ZNY must coordinate together to give a complete track of all aircraft

**DIGITAL VOICE FILE REQUEST LIST FOR FBI**

AAL11 BOS ATCT  
ZBW

UAL175 BOS ATCT  
ZBW  
ZNY- Received

UAL93      EWR ATCT  
N90  
ZNY  
ZOB

AAL77 IAD ATCT  
DCA ATCT  
BWI ATCT  
ZDC  
ZID

**Request List from FAA Facilities**  
**Last Update 9/12 0300ET**

09-11-01 12:39:32z - 13:00:02z

NY TRACON extracted data for UAL175 beacon codes 1470, 3020 & 3321

Data unavailable from 13:00:02- aprox. 13:03 from Common ARTS,

ERIT data available for complete time period 12:39:32z- 13:03

File Name: UAL175\_EWR.TXT

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09-11-01 12:40:00z - 12:47:59z

NY TRACON extracted data for AAL11 no beacon code "primary only"

Additional tracking data is available from the SWF sensor from approximately 55 miles north of SWF radar site. The data is located in file AAL11\_SWF.TXT.

JFK radar track # 129, EWR radar track # 243, HPN radar track # 344, SWF radar track # 106

The aircraft entered the lateral boundaries of N90 airspace at approximately LAT 042 26 40.74

LONG 074 10 30.29

at 12:30:41z SWF 009/57.56nm

ERIT data available for this time period as well.

File name(s): AAL11\_EWR.TXT, AAL11\_SWF.TXT

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09-11-01 12:42:37z - 12:55:08z

NY TRACON extracted data for UAL93 beacon code 1527

Tracked from EWR airport exiting the lateral boundaries of N90 airspace.

File name: UAL93\_EWR.TXT



**Request List from FAA Facilities**  
**Last Update 9/12 0300ET**

<b><u>AEA</u></b> – Voice and CDR data in RAPTOR format from:	
New York TRACON – Time 0930-1015ET	Received
Washington National – Pentagon	Received
Dulles – Both Pentagon and Camp David incidents	Received
Pittsburgh – Camp David incident	Received
Washington Center radar for AAL77	Received
Washington Center voice	Received
New York Center radar	Received
New York Center voice replay	Received
Voice tape Millville AFSS	Waiting
 <b><u>AGL</u></b> - Voice and CDR data in RAPTOR format:	
Cleveland for UAL1898	Waiting
Cleveland Center radar for AAL77	Received
Cleveland Center voice replay for AAL11.	Received
Indianapolis Center radar	Received
Indianapolis voice tape via telephone	Received
Cleveland Center radar for DAL1989	Waiting
Cleveland Center voice for DAL1989	Waiting
 <b><u>ANE</u></b> - Boston Center radar and voice replay	Received

**DIGITAL VOICE FILE REQUEST LIST FOR FBI**

<b>AAL11</b>	<b>BOS ATCT</b> <b>ZBW</b>
 <b>UAL175</b>	 <b>BOS ATCT</b> <b>ZBW</b> <b>ZNY</b>
 <b>UAL93</b>	 <b>EWR ATCT</b> <b>N90</b> <b>ZNY</b> <b>ZOB</b>
 <b>AAL77</b>	 <b>IAD ATCT</b> <b>DCA ATCT</b> <b>BWI ATCT</b> <b>ZDC</b> <b>ZID</b>

**Request List from FAA Facilities**  
**Last Update 9/12 0300ET**

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Subject: **INFORMATION**: Partial Transcript;  
Aircraft Accident; UAL175; New York, NY;  
September 11, 2001

Date: September 28, 2001

From: New York ARTCC

Reply to  
Attn. of:

To: ZNY-ARTCC-148

This transcription covers the New York Center Radar Associate Sector 55 position for the time period from September 11, 2001, 1249:06 UTC, to September 11, 2001, 1312:41 UTC.

Agencies Making Transmissions

Abbreviations

New York Center Radar Sector 55  
American Airlines Inc. Flight 151  
Hawker Siddley N3TA  
American Airlines Inc. Flight 281  
Unknown Agency  
Delta Airlines Inc. Flight 45  
New York Center Radar Associate Sector 55  
Trans World Airlines Inc. Flight 885  
Delta Airlines Inc. Flight 2315  
U S Air Flight 542  
New York Center Sector 09  
U S Air Flight 1973  
Delta Airlines Inc. Flight 45  
Delta Airlines Flight 289  
Boston Center Kingston Sector  
Gates Learjet N50MJ  
Trans World Airlines Inc. Flight 3  
Washington Center Dupont Sector  
Continental Air Lines Inc. Flight 211  
New York TRACON  
New York Center Sector 36  
New York TRACON, Liberty South Sector  
Pennsylvania Commuter Airlines Inc. Flight 3525  
New York Center Radar Sector 25

R55  
AAL151  
N3TA  
AAL281  
Unknown  
DAL45  
RA55  
TWA885  
DAL2315  
USA542  
SEC09  
USA1973  
DAL45  
DAL289  
ZBW IGN  
N50MJ  
TWA3  
ZDC-DUP  
COA211  
N90  
SEC36  
N90-LIBS  
ALO3525  
R25

Agencies Making Transmissions

Boston Center Stewart Sector  
Washington Center Sea Isle Sector  
America West Airlines Flight 193  
New York TRACON, Liberty West Sector  
Delta Airlines Inc. Flight 9900  
Continental Air Lines Inc. Flight 1167  
Washington Center Coyle Sector  
Trans States Airlines, Inc. Flight 5411

Abbreviations

ZBW SWF  
ZDC SIE  
AWE193  
N90-LIBW  
DAL9900  
COA1167  
ZDC CYN  
LOF5411

I hereby certify that the following is a true transcription of the recorded conversations pertaining to the subject aircraft accident involving UAL175:

Martin J. Fournier  
Quality Assurance Specialist  
New York ARTCC

1249:06	R55	american one fifty one traffic's no factor climb and maintain flight level two eight zero
1249:11	AAL151	ah we're out of two seven zero for two eight zero american one fifty one
1249:15	R55	hawker three tango alpha maintain flight level two eight zero
1249:18	N3TA	two eight zero three tango alpha
1249:19	R55	hawker three tango alpha contact new york one three four point three two
1249:23	N3TA	thirty four one two er ah say the frequency for three tango alpha again
1249:26	R55	thirty four thirty two



Martin J. Fournier

File: 8020.1

WP: RA42 Memo UAL175.doc

ZNY-505.2:M. Fournier:MJ:x1055:09/27/2001

